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Courtesy Pennsylvania Ry.

THE CAPITOL AT NIGHT

PROBABLY the Finest Dome in America Is That Adorning the Capitol Building at Washington, D. C. This Towering Structure Is Made Even More Impressive at Night by the Great Flood Lights Which Give the Scene an Added Touch of Awe Inspiring Grandeur. It Offers Another Incentive for Mutual Folks to Attend the Coming Big Convention, In September

Property and Casualty Insurance

Side Lights on the Importance of Closer Understanding Between All Parties Connected With These Branches of Underwriting

By AVARD L. BISHOP

Professor of Business Administration, Yale University

II.
PRINCIPLES UNDERLYING SOUND INSURANCE

THE purpose of this article is to outline some of the fundamental principles upon which sound insurance is based. We use the qualifying word "sound" advisedly, for if it is worth while to buy insurance at all, and we thoroughly believe it is, only the best should be purchased. To insure against the chance of loss to one's property or against loss that may result from any unforeseen casualty means first, last, and always, to make certain, to play safe. There should be no question, therefore, at any time that the insurer — the company to which the risk is shifted by buying insurance—has not only the *ability* to pay, in the event of a loss, but also that beyond the shadow of a doubt it *will* pay if the loss insured against is definitely established. Any so-called insurance scheme which does not conform to these conditions is not worthy of the name.

The More One Understands Insurance the More Reasonable It Seems.

We have searched diligently in insurance literature, and have inquired extensively of insurance men, for a satisfactory definition of insurance. With a desire to acknowledge any indebtedness for suggestions to various writers and authors who have been consulted in the matter, and having in mind the types of insurance under consideration in these articles, namely, property and casualty insurance, the following definition is here submitted. Insurance is a contract of indemnity, sold by the insurer to the insured for a consideration called the premium, under which the insurer (assuming a fire insurance), in the event of a fire causing loss or damage to the insured's property as specified in the contract, or, similarly, (in the case of a casualty insurance) in the event of the occurrence of a specified casualty causing loss to the insured, will indemnify the insured for his loss or, more specifically, will pay him the money equivalent of the loss suffered, as determined when the loss takes place, up to, but in no event exceeding, the principal sum mentioned in the contract. Of course, as everybody knows, the contract is evidenced by the insurance policy which is delivered by the insurer or its representative to the insured shortly after the coverage is given.

Among the important points expressed or implied in the foregoing definition are (1) that the insurance policy is evidence of a contract; (2) that it is merely a contract of indemnity and, as explained later, is not a business arrangement under which, in the event of a fire, or accident, the insured stands to profit thereby; (3) that the insurer assumes certain specified risks of the insured, but only those set forth in the contract; (4) that the insured pays the insurer a consideration called the premium as compensation for, and as a fair measure of the risks of the insured which are assumed by the insurer; (5) that the insured, in event of loss covered by the contract, is to be *indemnified* for the loss; in other words, the insured is not to be placed in the position of profiting by the happening of the unforeseen event, but, theoretically, at least, he is to receive from the insurer a sum of money which is exactly sufficient to make good to him the loss suffered, and, (6) that the indemnity or monetary payment made by the insurance company in no case shall exceed the face value of the policy, even though the loss might be a much higher sum. All these factors of the insurance contract are fundamental and important, and should be given the greatest attention by the insured if he is to understand the exact nature of the coverage he has purchased as set forth in his policy, and if he is to be satisfied when an equitable settlement is offered him by the company in the event of loss.

Now there are certain other requirements that have been recognized by insurance experts and writers on insurance, which are absolutely indispensable for sound insurance. Some of these must be considered

here for they are worthy of special emphasis. They must surely exist, otherwise the so-called insurance scheme granting coverage in any particular instance would be little short of a wager.

IN THE first place, it is necessary, in order that the insurance contract may operate satisfactorily for all parties concerned, that the insurer already should have assumed many risks of about the same kind. An insurance company, for example, that had insured only five to ten buildings against fire would not be operating on a large enough basis for the safe assumption of fire risks. It is only when a large number of risks have been taken by the insurer which are properly distributed geographically, that there is comparative safety in an insurance company assuming all the risks. It is difficult to determine just how many risks in any particular line of insurance constitute safety, but it is a relatively large number, and the larger the better. Furthermore, it is better that the line of coverage on different risks be relatively uniform, in other words, a few thousand dollars coverage should not be given on most of the risks, and several hundred thousand on others.

In order to make it reasonably certain that a new insurance company will not be wrecked in its initial stages by a fire taking place before it has insured a sufficiently large number of risks, the laws of some of our states provide that business may not be commenced by a new fire insurance company until it has at least one hundred applicants for insurance. This, of course, is in conformity with the sound principle in insurance that in numbers there is safety.

Another requirement for sound insurance is that the particular type of happening that is being insured against should be capable of reduction to statistical calculations which are approximately correct. In other words, it should be known, if possible, by the insurance company how frequently the particular happening actually occurs among, let us say, each thousand cases selected at random, and in conformity with a certain standard of selection. Practically any casualty that may thus be reduced to approximately mathematical calculation is a proper subject for insurance. In new fields of insurance where no experience is available as a guide, the companies have to feel their way along at first until experience accumulates and frequency data are compiled.

The reason why the event being insured against should be capable of being put on a fairly accurate statistical basis is that the company assuming the risks may know from such data how much net premium to charge exactly to cover the risk assumed. For example, if, in the course of a year, the event insured against happens in one per cent of the cases covered, the net premium to give $1000 coverage to each risk would be something like one per cent of the coverage granted or not far from $10 in each case.

Among buildings of a given type, under a given set of accompanying conditions, a fire occurs with striking frequency somewhere in the group if a sufficiently large number of cases are under review. If 100,000 buildings, properly distributed geographically in different cities, and in different parts of the same city, are insured against fire, the insurance company that has assumed the risk on these buildings knows beforehand (assuming the conflagration hazard to be eliminated) approximately how many of them will burn within a year. It is, of course, impossible to pre-determine, however, which ones of the buildings will burn. If this fact were known, the insurance company would not wish to assume the fire risks on these particular buildings; likewise, all other owners of buildings other than the ones just mentioned, if they knew positively that their buildings would not burn, would neither wish nor could be induced to have them insured. It is the uncertainty of the whole matter with respect to whose buildings will burn, taken in connection with the absolute certainty that a certain fairly defined number out of every 100,000 will burn, that makes a steady demand for fire insurance. It is this same uncertainty with respect to practically every other type of casualty that might be mentioned that constitutes a powerful motive on the part of the public for insurance coverage.

STILL another requirement for sound insurance is that the risk to be covered by insurance is of sufficiently great importance to constitute the basis of an insurance contract. For example, the owner of a new automobile might desire to purchase insurance whereby he would be indemnified for a slight scratch on any part of his car. Likewise, the purchaser of health insurance might wish to have coverage whereby he would be indemnified for a minor disability which would necessitate, let us say, his absence from his office, for only two or three hours of a single day. Also, the purchaser of marine insurance might desire coverage calling for compensation for the loss of a small package of goods of the value of only $1 to $2. In all such cases, the risk to be insured against is of such minor importance that insurance companies would scarcely be warranted in granting the necessary coverage. Time was when it was a common practice in property damage and public liability policies covering automobiles to grant full coverage without any deduction whatsoever. In certain instances this coverage may still be purchased. The trouble and cost involved in making adjustments for minor happenings, however, is entirely too great to be worth while either for the company or for the insured. It is hardly too much to expect that in practically all forms of casualty insurance the time will soon arrive when all policies will be written with a $50 or $100 deductible clause. Losses less than $50 or even more are too immaterial to constitute risks that are worth while being insured against. Theoretically and practically, full coverage may still be offered and bought but it is the experience of many companies that minor risks hardly warrant the making of insurance contracts to cover them.

Another feature that makes toward sound insurance is that the risk that is being insured against should not be capable of being influenced by any voluntary act of the insured. Unfortunately, however, this is an ideal that is impossible of attainment in connection with many types of insurance. For example, it would be a splendid thing for fire insurance companies if it were not possible for the insured to set his own house on fire. Similarly, it would be a boon to health insurance companies if it were not possible for human beings to pretend to be sick when they are not. It also would be a highly desirable situation for automobile insurance companies to find themselves in if it were not possible for the insured to burn or lose his own car. These examples illustrate what is meant by the undesirability of the voluntary acts of the insured being able to affect the risk involved. The possibility of the insured bringing about the event insured against results in what has been called the moral hazard in connection with the risk in question. It would be a great boon

(*Continued on page* 30)

Are You Going to Washington?

Annual Convention of Association and Federation on September 19th to 22nd Beginning to Stir Large Interest in Mutual Circles

CHOICE of the City of Washington, D. C. as the location of the next convention of the National Association of Mutual Insurance Companies and the Federation of Mutual Fire Insurance Companies grows more and more satisfactory and desirable as one studies the advantages of the nation's Capitol for a gathering of Mutual delegates.

The hosts of Mutual folks are so widespread that they fairly may be said to represent every section of the United States. And since it is the ambition of every citizen to visit for at least one time in his life, the center of the country's government, here is a way to combine pleasure with business. Thus while learning more concerning the progress of Mutual insurance, it is possible to brush up one's patriotism also by viewing the old landmarks which abound in Washington's vicinity and which tell a glowing story of the nation's history.

A COMPREHENSIVE program has been prepared for the entertainment of delegates and their wives and every point of interest both in the capital city and nearby will be visited under the auspices of the Mutual Committee in charge. It can be depended on that the reputation which this annual convention has for looking after the comfort and enjoyment of its delegates will be well sustained in Washington which holds so much for visitors to see and do.

Courtesy Pennsylvania Ry.

French's Statue of Lincoln

Further along in this article will be found repeated the information given in our last issue concerning trains and reservations. But just now let us continue on our trip about the convention city. You may remember that last month we spoke of the Capitol building, the White House, and other notable buildings. Added to these are a multitude of other attractions as for example the Lincoln Memorial. This great monument was authorized by Act of Congress, approved February 9, 1911, has been erected at a total cost of $2,644,000. Ground was broken on the site in West Potomac Park, at the foot of Twenty-third Street, N. W., February 12, 1914; the construction of the superstructure was completed in the autumn of 1917; the terrace wall and approaches in the latter part of 1919, and the colossal statue of Lincoln by Daniel Chester French was placed in position early in 1920.

THE Memorial to Abraham Lincoln is in the form of a great temple, designed by Henry Bacon, architect, of New York, and features a statue of Lincoln, a large tablet with his Gettysburg speech inscribed thereon and his second inaugural address. The most important feature is the statue of Lincoln, placed in the centre of the Memorial, designed and executed by Daniel Chester French, of New York. Over the memorial panels on the north and south walls, and giving relief and effect thereto, are decorative paintings by Jules Guerin, of New York. In general terms the painting on the south wall (over the Gettysburg Address) represents emancipation of a race, the subordinate groups representing Civilization and Progress; the painting on the north wall (over the second inaugural) represents Reunion, and progress in the arts and sciences. The exterior colonnade forms a symbol of the Union, each

For Dignified Magnificence This Memorial Stands As One of the Most Beautiful of All the Monuments to Great Americans Seen in the City of Washington.

Courtesy Pennsylvania Ry.

The Lincoln Memorial in Potomac Park, Washington, D. C. Which Has Become a Shrine for Every Patriotic American Who Visits the Capitol.

column representing a State—36 in all for each State existing at the time of Lincoln's death. On the walls appearing above the colonnade and supported at intervals by eagles are 48 memorial festoons, one for each State existing at the present time.

The exterior of the building is constructed of Colorado Yule marble. The steps, platforms, cheek blocks, terrace wall and steps and walls of the approaches are constructed of Pink Milford granite from Massachusetts. The interior walls, columns and ceiling lintels are of Indiana limestone. The interior floor and the wall base are of Tennessee marble. The ceiling consists of bronze beams with rectangular openings in which are placed slabs of marble from Alabama. The statue is in white marble from Georgia.

A VERITABLE treasure house of rare and interesting information is the Library of Congress. Its three million volumes occupy over fifty miles of shelves, yet the visitor can obtain any book he may wish to consult in as little time as he could perhaps find a book in his own library. It is interesting to know that the nucleus of this present vast collection of books was the splendid personal library of Thomas Jefferson, purchased by the government after the burning of the Capitol in 1814.

The ground floor of the Library is given over to the Copyright Office, a reading room for the blind, and the superintendent's office. On the first floor is the enormous reading room with the Librarian's room, the periodical reading room, the map room, and the Senators' and Representatives' reading room. Around this floor are pavilions and galleries where one may retire for quiet study or to examine the exhibits of engravings, rare books, first editions, portraits of the Presidents and various collections of like character there assembled. One should take time to go through the Library unhurriedly because it is truly an extraordinary institution whose interesting features are well worth an extended visit.

Architecturally the building of the Library of Congress is itself a great achievement. It is in the Italian Renaissance style three stories high, and constructed of New Hampshire granite. It covers nearly four acres of ground, yet every nook and corner of the vast edifice is well lighted, there being nearly two thousand windows.

THE Treasury is Uncle Sam's money chest—and a vast wealth it is called upon to guard in these times! On January first, 1923, it held gold in the sum of $3,247,510,704—the largest amount of the precious metal ever brought under the control of any one government in the world's history. Here also are stored the silver dollars that are the basis for our paper money. Every day the money counters of the treasury count nearly a million separate pieces of money, amounting to between four and five millon dollars. This money is wrapped up in packages by the sealing clerks—sometimes as much as $4,000,000 worth in one single package.

Taking care of the country's money is only one of many duties that the Secretary of the Treasury performs. The Treasury Department, employing some sixty thousand men and women, controls the nation's finances, is responsible for the enforcement of prohibition, and has supervision of the Coast Guard. It establishes harbor regulations, is the guardian of the public health and maintains an ice patrol in the North Atlantic!

The building which houses these manifold activities is one of the oldest public structures in Washington, having been built before the Civil War. Many regard it as second only to the Capitol in beauty. Its porticoes and stately columns give it an appearance much like that of the ancient Greek temples—in fact, the east front was patterned after the Temple of Minerva at Athens.

THE Bureau of Engraving and Printing designs, engraves and prints for the Government all United States bonds, Certificates of Indebtedness, Treasury Notes, United States Currency, National Bank Currency, Federal Reserve Notes, Federal Farm Loan and Joint Stock Land Bank bonds; revenue, customs and postage stamps; disbursing officers' pension, retirement, and interest checks; liquor permits; passports; drafts; warrants; transportation requests; certificates, commissions, and licenses for various purposes; and many other classes of engraved work for Governmental use. It also designs, engraves, and prints bonds, currency, revenue, and postage stamps as authorized by the Bureau of Insular Affairs for the insular possessions of the Government.

Extreme care is exercised to prevent fraud or error in the process of making the government's money. The distinctive fiber paper used in making Government securities is manufactured under Governmental supervision, and, from the time it leaves the paper-making machines until it is delivered in the form of securities, it passes through the hands of a score of persons.

The plates from which our currency is printed are as jealously guarded as any treasure the Government possesses. Visitors are permitted, however, to see how the money is printed.

There are many interesting exhibits in the Bureau of Engraving and Printing showing the many kinds of securities that have been printed in the past. Among these are the series of the old fractional currency—shin-plasters—and the largest gold note ever issued.

A VISIT to Washington without a trip to Mount Vernon is almost unthinkable. The outlines of this famous old house of Washington are familiar to every school child in America. It is one of life's ambitions to be able to say, "I have paid my tribute to the greatness of Washington by a pilgrimage to Mount Vernon. I have stood before his tomb and passed through the chambers of the home of this great man of patriotism, honor and integrity."

The house stands upon a sloping hill, overlooking the Potomac River, a typically southern mansion, with its shaded lawns, gardens, orchards and outbuildings. The property is owned and cared for by the Mount Vernon Ladies' Association, an organization of patriotic women throughout the United States, through whose efforts this patriotic shrine has been preserved for the future generations of Americans.

The associations that cluster about this hallowed place endear it to the heart of every American. To walk through the rooms, once occupied by Washington and his noble bride, to see the articles of furniture, the gifts and mementoes, each with a story of its own, is to experience strange thoughts and sensations—these sacred relics encompass time, as it were; they are the bridge between the living and the dead.

(*Continued on page* 31)

Farmers' Mutual Fire Insurance

Continuing a Series of Articles on the Problems of Underwriting In Rural Communities

By V. N. VALGREN

Agricultural Economist, U. S. Dept. of Agriculture

Article V. The Livestock Problem

WITH few exceptions the farmers' mutual fire insurance companies insure livestock as well as farm buildings, household goods, farm equipment and farm supplies. As in the case of other forms of farm property, the insurance on livestock covers only against fire and lightning, except in about fifteen percent of these mutuals which also include windstorm among the hazards insured against. In no case do the farmers' mutual fire insurance companies cover livestock against sickness or accident unless caused by the hazards above mentioned. In other words, the business of these companies is that of fire insurance, and not "livestock insurance" in the more technical sense by which we understand protection against the loss of animals resulting from any or all causes beyond the reasonable control of the insured.

Nevertheless the livestock item in the risks of these mutuals has been a source of no little trouble and worry to their respective officers and directors. These troubles, in the main, hinge upon the fact that in the case of livestock, lightning rather than fire is the primary hazard at least in most parts of the United States. While on rare occasions a group of animals may be killed by a single bolt, this is highly exceptional. Usually only one animal at a time is lost from this cause.

Insofar as fire is concerned the hazard to livestock is of course considerably smaller than it is to buildings and the inanimate contents thereof. During a large part of the year the cattle, for example, are pastured where there is no fire hazard whatever. Even the work animals are exposed to possible fire loss only about half of the time at most. No such hazard exists while the horses and mules are in actual use, and even these animals are on most farms pastured or allowed to forage out of doors a goodly part of the time.

Realizing that the fire hazard to his livestock is relatively small, and that lightning rarely exacts a toll of more than one or two animals at a time, the members of mutuals are frequently tempted to insure their animals at only partial value, whenever this is possible under the rules and effective requirements of the company. In extreme cases the owner of several farms has been permitted to carry a few hundred dollars of insurance on his livestock in one blanket sum when the collective value of the animals was as many thousands. This is of course decidedly unfair to the other members of the company as well as to the organization itself.

Cows Are Favorite Targets for Bolts of Lightning.

It is no answer to say that every member has the same privilege of underinsuring his livestock if he wishes to do so. The man with only two or three horses for example properly feels that these may be subject to a single loss, and that therefore he must carry essentially full protection. The man with a score of horses, on the other hand, may feel relatively safe against the loss of all or a substantial part of his group by a single stroke of lightning, or even by a single fire particularly if he never has all the animals in the same barn. He therefore may decide to carry only two or three hundred dollars on horses, or a sum no larger than is carried by the man with only two or three animals. The probability that the larger farmer will lose one out of his twenty horses is of course many times the probability that the smaller farmer will lose one out of his two or three animals. In other words the chance of collecting for a horse lost by lightning on the part of the larger farmer is from six to ten times the chance that the smaller farmer will do so. Yet both pay the same amount of premium or assessment to the company. Similar inequities will of course occur in connection with cattle or yet other kinds of livestock when the company permits blanket insurance in optional amounts regardless of the quantities or values covered.

Overinsurance should be avoided on livestock as well as on other kinds of property. In general it may be said, however, that in the case of livestock more serious errors have been committed by allowing underinsurance on the blanket plan than by overinsurance. The approximate value of an animal is more easily established following a loss than is the value of a building. Also death by lightning can not be brought about by the will of the owner and to burn an animal a building too would have to be burned. To wilfully burn one's livestock requires even a greater lack of conscience than to burn one's building. Hence the moral hazard resulting from overinsurance is not likely to be as great in the case of livestock as in the case of buildings and inanimate contents.

To avoid underinsurance of livestock particularly on the part of larger owners, three special methods are being used. One of these may be called specific or individual insurance. Under this plan each animal is listed and described and carries insurance in a stipulated amount. Obviously this plan is practicable only in localities where farms are small and the animals owned by each member are few. Where larger groups of animals are owned it becomes hopelessly cumbersome if not impossible.

Another and far more practical plan under any and all circumstances is that frequently referred to as the prorating or distribution plan. Under this plan a blanket sum is written on each class or group of animals as for example $800 on farmer A's horses and $1000 on his cattle. In addition to providing that in case of loss the indemnity shall not exceed the value of the animal, nor a fixed maximum such as $100 for a horse and $60 for a bovine animal, the by-

laws also provide that in no case shall the indemnity exceed a sum equal to the insurance carried on the class of animals involved divided by the number of animals in the class at the time of loss. Assume now that the loss of a horse is reported by A above, and it is found that at the time of loss he had ten horses. The maximum sum that he can collect, ignoring any other limitations, is one-tenth of his $800 of insurance or $80. Similarly if a cow is lost and he had thirty head of cattle, the maximum that he can obtain is $1000 divided by thirty or $33.33. Had A made a decided effort to avoid paying his share of the premiums and assessments of the company by carrying only $400 on his ten head of horses and $500 on his thirty head of cattle he would under this prorating or distribution plan be limited in case of loss to $40 on a horse and $16.66 on a bovine animal. He can not collect full indemnity on a loss without also carrying full insurance and paying a corresponding share of the cost of insurance in his company.

A third method used by some of these mutuals to avoid unfair underinsurance of livestock, is the application of the well-known coinsurance principle. When used by these companies it is usually so drawn as to provide for one hundred percent coinsurance rather than eighty or some other percent usually involved in joint stock contracts.

This provision is not always stated in orthodox form in the by-laws of farmers' mutuals. For example some of these mutuals instead of providing that in case of loss the indemnity shall not exceed such a percentage of the loss as the insurance carried bears to the value of the group of animals before the loss occurred, provide instead that the indemnity shall be limited to such part of the insurance carried on the group as the loss bears to the value of the group prior to any loss. The result is nevertheless the same.

Letting X represent the indemnity due, we have under the first or approved form of statement, the following proportion or equation:

$$X : \text{Loss} :: \text{Insurance} : \text{Value}$$

Or

$$\frac{X}{\text{Loss}} \text{ equals } \frac{\text{Insurance}}{\text{Value}}$$

Under the second form of statement we get the following proportion or equation:

$$X : \text{Insurance} :: \text{Loss} : \text{Value}$$

Or

$$\frac{X}{\text{Insurance}} \text{ equals } \frac{\text{Loss}}{\text{Value}}$$

Solving these equations we get from the first form

$$X \text{ equals } \frac{\text{Insurance}}{\text{Value}} \times \text{Loss}$$

and from the second

$$X \text{ equals } \frac{\text{Loss}}{\text{Value}} \times \text{Insurance}$$

or in either case

$$X \text{ equals } \frac{\text{Loss} \times \text{Insurance}}{\text{Value}}$$

To make this a bit more concrete let us assume that farmer B has ten head of horses insured for $600, while the actual value of these horses is $100 a head or a total of $1000, and that one horse is killed by lightning or by fire. Under the first statement of the coinsurance clause, X, the indemnity due, will be

$$\frac{X}{\$100} \text{ equals } \frac{\$600}{\$1000}$$

solving which we find

$$X \text{ equals } \frac{\$600}{\$1000} \times \$100, \text{ or } \$60$$

Under the second statement of the coinsurance provision above given we have

$$\frac{X}{\$600} \text{ equals } \frac{\$100}{\$1000}$$

and solving this we find

$$X \text{ equals } \frac{\$100}{\$1000} \times \$600, \text{ or again } \$60$$

Under the first statement, namely the standard coinsurance provision, the indemnity in such part of the loss as the insurance is of the value; while under the form of this provision as occasionally found in the by-laws of farmers' mutuals the indemnity is such part of the insurance as the loss is of the value. That the result of these two forms of statement should be identical may seem strange. The mathematical explanation is of course that both statements involve a form of proportion and that in each of the two forms the indemnity and the value constitute the first and the fourth terms respectively, while the Insurance and the Loss constitute the "means," the product of which must equal the product of the first and fourth terms or the "extremes."

The Adjuster Must Decide Whether Lightning or Disease Caused the Loss.

Returning more directly to our subject, it may be said by way of partial summary that three special methods are in use by farmers' mutuals for the prevention of wilful underinsurance of livestock. These are first, specific insurance on individual animals; second, a prorating or distribution plan; and third, some form of coinsurance provision.

In the absence of any of these special plans most of the companies attempt to insist that insurance on the livestock must be taken by applicants in an amount bearing a reasonable relationship to the value. In fact many specify in their by-laws that livestock must be insured at not less than some stipulated percentage of total value such as 50%, 60%, or 75% or some other minimum.

Such requirements when applied by reliable officers or agents may be made quite fully to meet the problem except in cases where the number or value of the group of animals varies materially between the time of effecting insurance and the occurrence of a loss. Where such variations in number or value are marked as for example where cattle are bought and fed for a part of the year, underinsurance can be effectively controlled only by some such special plan as those above outlined.

Normally the first of these plans is well-nigh impossible, and the choice is limited to the prorating plan or the coinsurance plan. With reference to these two it may be said that the prorating plan is by far the simplest to apply and the easiest for all to understand. The coinsurance plan is, however, more equitable under all circumstances, and is neither very difficult to apply nor to explain. When used the standard form of statement for the coinsurance provision should by all means be employed, since the other form of statement of this provision, while leading to the same results will frequently be found confusing even to those well versed in insurance principles and practice.

Another difficulty in connection with livestock insurance is that of determining whether an animal was actually killed by lightning or died from some other cause. Many an animal has been paid for by farmers' mutuals, as well as by other insurers,

(*Continued on page* 30)

Insurance Conditions In France

A Companion Study to "Insurance Conditions in England," Which Have Been So Illuminating to the Insurance World

By RICHARD MORRIS, F.S.S.

I. Introductory

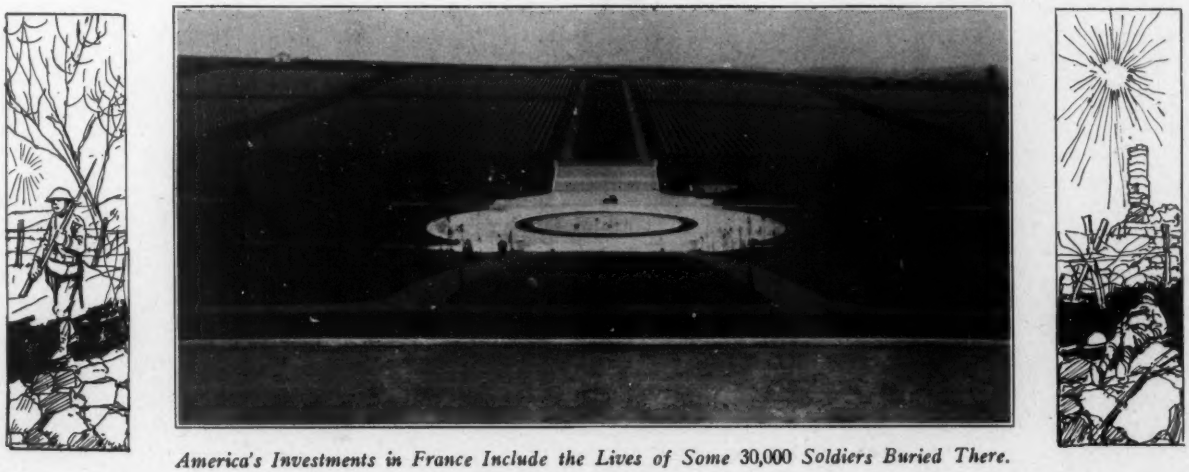
THE interest of America in France has always been of a cordial character. There is grateful recollection even now in Paris of the visit over fifty years ago of some of the leaders of American Mutual Insurance and of the help and encouragement they gave at a time when both were needed. But today there is a corner of France that will be for ever America for does it not provide a lasting resting-place for thousands of its young manhood. "In that rich soil a richer dust concealed." Over 30,000 graves of American soldiers were decorated in France last year by an American Association specially formed for the purpose. Paris is an American centre of great and growing interest. There is an American Cathedral, an American Hospital, an American Library with 35,000 volumes as well as several societies of a social and patriotic character. There is an Association of American Volunteers with the French Army of 1914-1917 the object of which is to cherish memories and associations and to maintain the ties of devoted friendship created among French and American comrades during the years of the war. There is a Chapter of both the Sons and Daughters of the American Revolution, the latter appropriately named the "Benjamin Franklin" after the great American who represented in France the struggling Colonies at the time of the Revolution. Last year the Daughters endowed a

Memorial Room in the American Hospital. The Library attached to the American Chamber of Commerce, where I spent some agreeable hours, is well organized and efficient. This also is named "The Benjamin Franklin" because of all men, it is stated, he made the biggest contribution to American Independence. He seemed to endow everything he touched with the qualities of vitality and endurance, and not the least in the realm of Mutual Insurance.

MY investigation in Paris into French Insurance Conditions was preceded by an extensive correspondence with the officials of both Stock and Mutual Companies, with the Editors of French Insurance journals as well as conferences with representatives of French Companies in England and by the careful perusal of some French Insurance books, new and old, with the aid (I must admit) of an educated Frenchman, a member of the old French Nobility and a Prince of the Holy Roman Empire—for a generation an exile in England. No, not an exile for he is now more English than the English.

I have to express my special indebtedness to Mr. Paul Sumien, the Head of the Insurance Department in France, a Councillor of State and a Professor of Economics at the Paris University. He is recognized as the chief authority on Insurance in France. Also, to Mr. J. R. Cahill, the Commercial Counsellor at the British Embassy, himself the author of several official publications on French Economic Conditions; and to Mr. Welman, one of the most successful insurance brokers in France, an Englishman who went to Paris over thirty years ago as a junior clerk in the office of the Ocean Accident. Also, to a host of others too numerous to mention.

Perhaps I may be permitted at the start to make a brief reference to an interesting statement made by a French writer relative to the



America's Investments in France Include the Lives of Some 30,000 Soldiers Buried There.

early history of Insurance. The grouping and consolidating of risks has been recognized by man from the earliest times as an effective weapon to fight the menace of misfortune to life and property. The idea of spreading a loss over the whole community sustained by one of its members was known and put into practice by the ancient Hebrews. According to the Babylonian Talmud the ancient Hebrews when they were a nation had a plan of mutual insurance in daily use. The Talmud records that amongst the donkey owners forming part of a caravan one of them who had two donkeys lost one through no fault or negligence on his part. Another donkey was provided for him at the expense of the common fund. Compensation was always in kind and not in cash. The Talmud Commentators explain this restriction by stating that if compensation had been made in cash the donkey owner would then have only one animal under his charge instead of two and would in consequence not be likely to exercise the same watchful care. The ancient Hebrews did not have a clear and precise understanding of insurance as that which is the result of modern science. Nevertheless, they had a very good perception of its main characteristics, the sharing in common of risks weighing on the community and that insurance must compensate for a loss but never constitute a profit.

And was it not Joseph the son of Jacob, exalted by Pharoah to be the chief executive officer of the Kingdom of Egypt, who first taught the essential value of a reserve, the vital need in the fat years of providing for the lean years, of imposing a tribute on the land in the time of plenty to meet future scarcity? Alas, after these thousands of years how few of us have learnt the lesson.

THE French law makes an interesting distinction between Stock Insurance and Mutual Insurance. The written and unwritten law in France settles the character of mutual insurance as being essentially civil and not commercial. Mutual insurance by its nature is not an act of commerce. Speculation is one of the distinctive elements of an act of commerce but mutual insurance is absolutely disinterested. There are two kinds of commercial acts. Those that are commercial by their nature and those that are commercial by reason of the quality of their author. For instance, gardening is not a commercial act in itself but if a man sets himself up as a professional gardener, the act becomes commercial. It was long a

As in Other Countries, France Was First Concerned with Maritime Insurance.

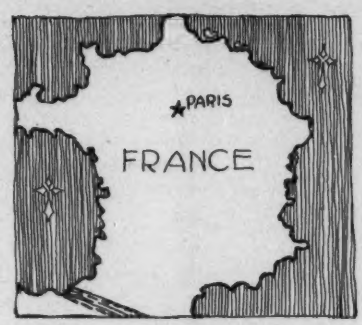
question of controversy in France that though it was recognised insurance in a mutual company does not constitute a commercial act by itself, nevertheless it was contended that in some instances it became an act of commerce by virtue of the employment of agents and brokers. But the question has long been definitely settled. The employment of Agents, or as the French lawyers say, the theory of the accessory, does not alter the character of mutual insurance which is essentially civil. So that in France Stock Insurance is governed by the Commercial Code and Mutual Insurance by the Civil Code. This point is important and I will come back to it in due course. The civil character of Mutual Insurance may account for the fact that the Directors of some of the early Mutuals were distinguished members of the French Nobility. There was a conventional limitation to the exercise of their energies. The Army, the Law and Mutual Insurance were open to them. They were certainly not attracted to mutual insurance by the emoluments to be derived therefrom. The first board of directors of the Mutual of Marseilles, which celebrated its centenary last year by a musical mass, comprised of members of the old French Nobility and their fees consisted of four packets of candles. It has a distinguished board today. Its operations extend over the whole of France covering fire insurances of the value of six hundred million francs.

IT is probable that in France as in otner countries the first insurance company was concerned with maritime transport in a rudimentary form, but insuring the lives of the crew during the voyage as well as the merchandise. The oldest insurance policy of this description is lodged with the Marseilles Chamber of Commerce and is dated the 15th of October 1584. The first Marine Insurance Company in Paris was formed in 1686. Insurance against fire first revealed itself by the formation by the Municipalities in 1717 of Bureaux des Incendie and then by the private companies towards 1754. Life Insurance was for a long time prohibited by law as it was feared it might give rise to speculation in human lives. Its true nature and aim as an act of foresight only began to show itself towards the beginning of the 18th century. A French writer states that life insurance is the most commendable of all forms of foresight. Its practice shows a degree of greater energy, more intense, than the mere act of saving. In 1787 the first life insurance company was authorized in France and was known as de Compagnie Royal d'assurances

"Insurance Conditions In France"

This series of articles by Richard Morris will be continued in future issues of the Journal of American Insurance and will develop some extremely interesting viewpoints.

But the Revolution damaged all insurance owing to the attacks of Mirabeau on their financial promoters, attacks not altogether undeserved. By the Decree of the Convention of the 24th of August 1793 the Insurance Companies were suppressed with the exception of the Tontine Societies. With the restoration came a renewal of the development of the notion of insurance. New companies of a mutual character were authorized by a Royal Ordnance. From 1818 Stock Companies were formed which by 1830 had attained into hopeful and substantial concerns. In spite of certain checks development continued until 1877 in all branches of insurance. Fire insurance then suffered owing to an inordinate competition amongst a large number of companies resulting in disaster due to low, speculative and uneconomic rates. Marine Insurance until 1860 experienced a period of prosperity but from that date the position of the companies declined. The transformation effected in navigation and especially the mistakes committed in the construction of the first steamboats caused havoc to Marine Insurance. Life Insurance remained stationary for a long period owing to competition from the Tontine Societies the poor results of which in the end brought discredit on the whole business. The Agricultural Insurance Societies created in 1858 on the initiation of the Emperior



and with the benevolent help of the administration had to go into liquidation in 1867. From 1877 to 1882 was a period of crisis for all Insurance Companies due to excessive competition amongst a crowd of struggling companies. Many disappeared but fusion and grouping into Syndicates enabled some to weather the storm. Then the State regulation of Insurance became more precise and one can say that from this crisis dates the present day development of Insurance in France, particularly with regard to Life Insurance. The Accident Companies received a much needed impetus by the Workmen's Compensation Act of 1898 and a few re-insurance companies were formed. The history of Insurance in France is marked by a steady progress from 1882 until 1914 when the Great War broke out which, however, did not seriously affect the progress of the Fire and Accident Companies.

RE-INSURANCE in France developed owing to the closing of relationship in 1914 with the German Re-insurance Companies. Marine Insurance during the War enjoyed extraordinary prosperity but it was forced and temporary. Life Insurance has been seriously hit and is still adversely affected by the depreciation in their securities and the present time is stated to be one of "meditation and reconstruction." They have also suffered by the delay in the payment of premiums and of rent on their properties and interest on their mortgages. It is difficult to say how much of the insurance funds of France were invested in Russian Bonds, a form of investment that was encouraged by the French Government. The period of re-construction may be prolonged. Time and patience may yet adjust the position. Straightening up has already been begun but unwise and too hasteful acts are to be avoided. The Tontine Societies are also in a critical position, their investments being in State Bonds and other Stocks which have depreciated in value, resulting in disappointing dividends.

Before the War the re-insurance business in France was affected almost wholly by the great German Companies of Re-insurance. There were only a few French Companies whose total premiums amounted to twenty million francs whilst the German Companies had a premium income of three hundred and ten million francs. The Germans were regarded as the

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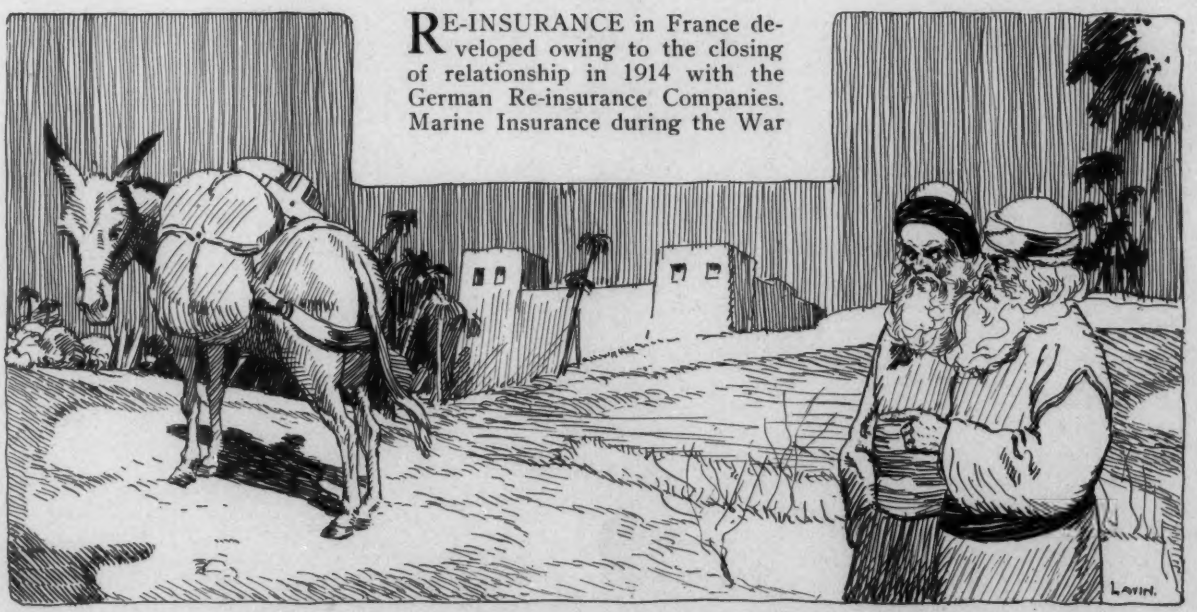

Joseph, the Son of Jacob, Was the First Man in History to Point Out the Value of Building Up a Reserve.

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In the 151st Year of Independence

IN the 151st year of American Independence it is singularly fitting that the national convention of mutual insurance companies and allied organizations should be called to meet in the Nation's Capitol. For such an assembly in such a year Washington is the only city, the logical city, the city to which the mutuals are irresistibly drawn by their sympathy in spirit and method for all that Washington represents of American ideals. The story of the mutuals is so interwoven into the history of this growing country, so closely associated with some of its greatest names, such as Franklin and Marshall, that in the national capitol it cannot feel other than at home.

It is with a sense of the eternal fitness of things, as well as with the desire to be early in preparing the minds of our readers for a great occasion, that we have dedicated this July issue of the Journal of American Insurance to the coming convention. This month has the national seal upon it. In the calendar it marks the high spot in this sesquicentennial year. Independence Day turns the thoughts of all of us to the interests of our country, to the record of its achievement, to the glorious traditions of its heroic leaders and clear-visioned statesmen, to the splendid promise of its future.

We are then in frame of mind to consider the autumn gathering of the mutual hosts, and the noble setting in which it will be held.

BEYOND question it is an excellent thing that this distinctively American institution, into which the fundamental principle of American progress has been imperishably wrought, should regard its own history and development, its magnificent opportunities for service, from the standpoint of that city toward which all American eyes look for inspiration. From this center we have the national outlook, and here we may feel the atmosphere of those mighty influences which have worked in American life for the upbuilding of the Republic. We are surrounded by memories. From all sides they crowd in upon us—memories to be cherished as part of an American's heritage.

It is not mere sentiment to say that Washington is unlike any other city in the country, any other city in the world. It has a beauty peculiarly its own, a beauty which, in recent years, has been enriched and extended to a degree which will arouse the admiration of those who have only recollections of visits made ten or a dozen years ago.

Here is a city planned from the beginning to be the heart of a great nation. It is only history to say that city planning, now the custom of all American cities which have intelligent pride in their development, began with Washington.

It was on July 16, 1790—Just 137 years ago—that Congress designated the District of Columbia as the seat of the federal government. The States of Maryland and Virginia united in giving to the country an area of about 100 square miles for this purpose. In 1846 Virginia's portion of the district was ceded back to the state, leaving the present area of about 69 square miles.

One of those ties which has always held America in friendliness for France was made when George Washington asked the French engineer L'Enfant to prepare the plans for the city which was to bear the name of the first President. The basic design of the city is his, but Andrew Ellicott, an American, carried it into execution.

ONCE in its history a foreign foe occupied Washington. In August 1814 the British entered it, burning the Capitol, the White House and other public buildings. These acts of needless vandalism are not remembered with pride by the modern Britisher, and the spirit of animosity which they represented has, happily, ceased to mark the feeling between the two English-speaking nations.

The White House, which vies with the Capitol as a center of interest in Washington, was built in 1792, and restored in 1818 after the British occupation. The architect for this stately building of freestone, painted white, was James Hoban, and George Washington himself laid the foundation stone.

Pennsylvania avenue, the street of Presidents, is the most famous thorofare in America. More of the nation's great men have passed up and down this spacious highway than on any other avenue. Here they have mingled with the multitude in that perfect spirit of democracy which America was first to exemplify among the peoples of the modern world. If you have any gift of imagination it can be quickened here, and, as you gaze upon the Capitol dome in the distance, you can give rein to dream, and recall the famous figures of the past who have made this street a golden thread in the tapestry of American history.

The panorama of magnificent edifices which unrolls before the eye in Washington has two aspects—one of the past, and one of the present; one of the celebration of splendid deeds and devoted lives, and one of immediate activity in the huge task of carrying on. Pride of accomplishment is sobered by a sense of responsibility. The burdens of today are no greater in comparison to national strength than they were 151 years ago, but they are more complex. Every year in the record has heaped the measure of our obligation, and opened avenues of new challenge which we must enter if we are not to prove recreant.

But, in all of this, we will be impressed by the fact that it was the spirit of mutual interest and mutual

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Life Lights on a Business Background

Concerning the Importance of Little Things.

By S. J. DUNCAN-CLARK

I WAS passing thru the office the other day when I heard somebody in authority talking in serious tones to the office-boy.

"Son," said he, "if you want to hold your job and to qualify for a better one you will have to learn the importance of little things."

The occasion of the remark I later learned was a mistake the lad had made in stamping a letter. It had been one cent short of the necessary postage, and had come back to the office instead of going on to its destination, where its arrival was essential to the completion of a deal involving many thousands of dollars.

"Gosh," said the boy, when charged with the error, "I was only a penny out. That ain't anything to make a fuss about."

He has since revised his opinion of what may be just cause for a fuss. It was, of course, an absurd opinion; but office-boys are not the only sinners in underestimating the importance of little things. Many a big business man has discovered to his sorrow that in some matter of moment to which he had given close attention neglect of a seeming trifle has disappointed all his hopes.

IT WOULD be a good thing for all of us to take a day or two off and look into what science has to say about the importance of little things. A friend of mine who earns a livelihood trying to teach physics to sophomoric youth in a jerkwater college came to town the other day, and I took him out to lunch. I told him of an article I had been reading in a Sunday newspaper which purported to convey information on the marvels of the atom. "Is that stuff true?" I asked him. "I find it difficult to believe it."

"I am certainly not going to vouch for anything which may be printed in the feature section of a Sunday newspaper," he said. "The chaps who edit those weird compilations are never satisfied with mere facts. And yet the facts about the atom are amazing enough, and, I confess, they strain credulity."

"Did you ever see an atom?" I asked.

"No," said he, "nor has anybody else ever seen one. The most powerful microscope we have falls far short of making an atom visible."

"And yet you believe in it, and pour scorn on the Sunday editors because of what they ask us to believe," I scoffed.

"Have you ever seen the wind?" retorted my friend quietly.

"No," I confessed, "but I have seen the consequences of the wind. I went thru a tornado once."

"So you believe in the wind without seeing it; and precisely for the same reason I believe in the atom without seeing it. I have seen consequences which can be explained only by believing in the existence of atoms."

"But this newspaper said atoms had been weighed and measured. I suppose that was editorial fancy," I said.

"Not at all. They have been weighed and measured, but by indirect means—that is by calculations based on the effects which atoms produce," the physicist explained.

"WELL, how big is an atom?" I asked, still sceptical.

"If I were to tell you in figures," replied the professor, "they would have no significance for you—your intelligence could not grasp them; but——"

"Thanks for the compliment," I interjected. My friend ignored the sarcasm, and continued calmly,

"I can give you a sort of kindergarten illustration which may help you to understand, not how big, but how little is an atom. If you could isolate a single atom and place it here on the table beside a baseball, and then begin a process of simultaneously doubling both, by the time your atom had reached the size of one of those peas on your plate, your baseball would be as big as the earth."

"You tell me that seriously?" I gasped.

"I do," he said.

"And a fellow once called me a 'human atom'," I exclaimed.

"He might have done worse than that. He might have called you an electron or, worse still, a proton. An electron is a particle within an atom —a particle of negative electricity— and it is only about one fifty-thousandth the size of an atom. A proton is a particle of positive electricity, also within the atom, and it is a little bigger than one-thousandth of an electron. So there you are!" The professor lit his cold cigar, leaned back in his chair, and looked at me quizzically.

My imagination was reeling.

"Have you anything smaller than that?" I managed to stammer.

"No," he said, "but we may have, some day."

"And you mean to tell me that high-brow chaps like you are spending your time playing with such infinitesimally trifling things as these alleged electrons and protons," I rallied.

"Infinitesimal—yes; but trifling — no. Why man," and he thrust his face toward me as a long finger tapped emphasis on the table, "Those electrons and protons are the substance out of which everything in the universe is made, including your somewhat insignificant self. Moreover you have to be mighty careful how you put the little things together. The difference of one proton in an atom will make a whale of a difference in what you get.

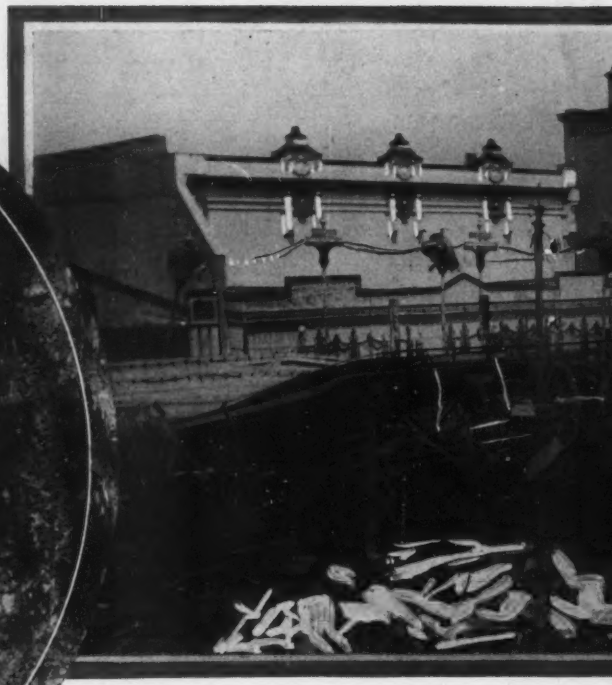
"You say one proton more or less in an atom makes a whale of difference. What do you mean?" I asked.

"Take an atom of mercury, for example," said my friend. "If it had one less proton it would be an atom of gold, and if you could knock three protons out of an atom of lead you would have an atom of gold."

"Then why don't you get a lot of lead, knock out the necessary protons to make it into gold and so become a millionaire instead of a professor of physics on a beggarly salary," I jeered.

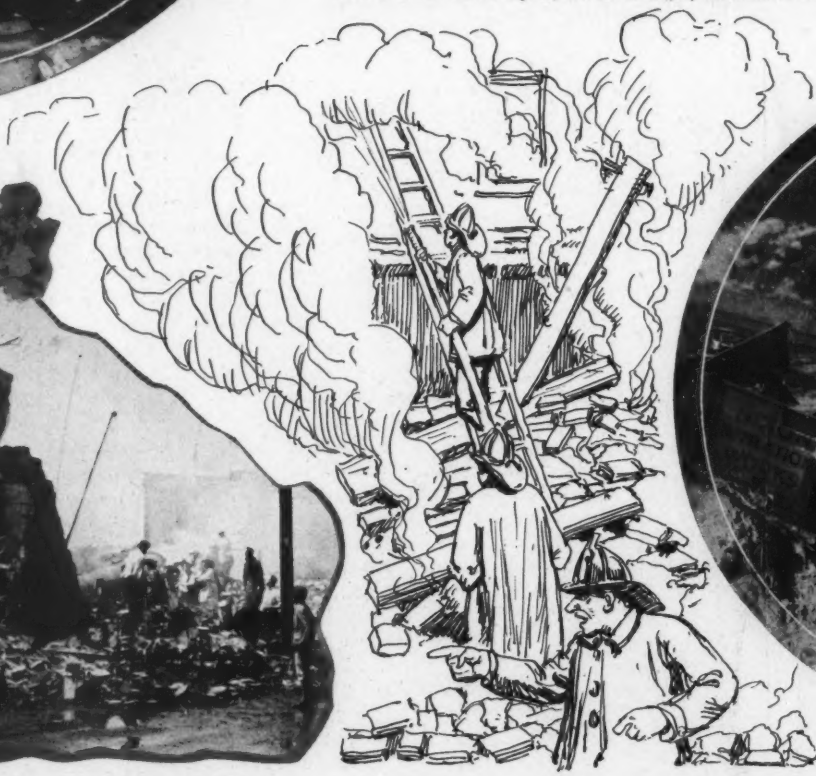
"Alas, that we have not yet learned how to do," he answered. "And, perhaps, it is just as well, altho a little lead transmuted into gold would come in mighty handy just now. I have been planning for the last five years to make a trip to Europe, but I never seem to get far enough ahead. But," he finished, "next time you are tempted to talk about the unimportance of the infinitesimal, remember the proton."

If I can ever get that office boy to stand still long enough I am going to tell him about the proton.



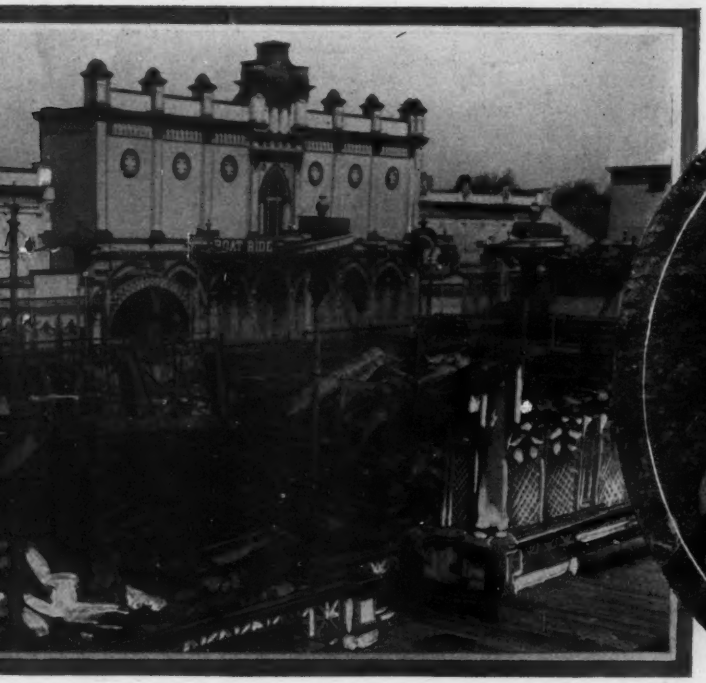
(Left) Emergency ambulance of Washington, D. C., whic into a tree, while on the way to a hurry call. Three peo mated at $250,000 was done when a fire broke out in the oldest amusement park. The tower was for years the high covered with electric lights, which at night, illuminated t

(Above) Two men were missing and two severely burned after an explosion and fire that destroyed a concrete plant at Ridgefield, N. J., and razed two nearby dwellings, with damages estimated at $150,000. Fire fighting apparatus from twelve towns had a two-hour fight to keep the flames under control.



(Above) Two of twenty-three school students were was struck by train at a grade crossing near Asbury view and the train crashed into the truck with a r students, all pupils of Metuchen, N. J., High Schoo

MORE PRACTICAL ILLUSTRATIONS OF



. C., which collided with another car and crashed Three people were injured. (Above) Damage esti- out in the 250 foot tower at White City, Chicago's rs the highest point in Chicago and was completely minated the entire south side of Chicago.

Photo by U. & U.

(Above) A State Trooper, near Monroe, N. Y., collided with another car, hurling the latter fifty feet across an embankment. The trooper's sedan was burned, and the occupant of the other car was killed.

Photos by P. & A. Except as Noted.

lents were killed when an auto truck in which they were riding ar Asbury Park, N. J. A new crossing draw blocked the driver's with a rush that wrought havoc and death to the party. The igh School, had been to Asbury Park.

(Above) Thirty cottages at Macatawa Park burned on June 16th, near Holland, Mich. This $180,000 blaze was caused by a woman, preparing her cottage for the summer, who tossed oily rags into a fireplace. A larger fire two months ago at the same place sent two men to jail for arson.

OF THE NEED OF MUTUAL INSURANCE

Safe Keeping of Records

Potency of the "Iron Safe and Inventory Clause" and How the Courts Have Construed It.

By ALBERT W. FRIBOURG

THE so-called "iron safe and inventory clause" of commercial fire insurance policies is a favorite ground for litigious contention. The rare layman who actually does read his policy will have no difficulty in deciphering the meaning of this most frequently employed clause. In simple, understandable English it requires the insured to keep at all times in a fireproof safe complete account books and an itemized inventory of all stock on hand at the last inventory period within the year. Yet its simplicity is apparently misleading for many courts, including the United States Supreme Court, have struggled with its terminology and have so twisted and turned it in the interest of the particular litigant before the court, that it is difficult to state concisely exactly what the clause includes.

The attitude of the courts is readily comprehended. The clause is inserted to protect the insurance company from wild and fantastic claims; from innocent or dishonest exaggerations after the loss when all means of proof have been destroyed. Yet the typical case which reaches a court of final jurisdiction presents a radically different picture. The strict operation of the clause would deprive an innocent, though somewhat negligent, policy-holder of the benefit of his policy and cast the ultimate loss upon him, although he had been paying for protection. The courts moved by perfectly human sentiments apply their logic in favor of the negligent policy-holder and liberalize the meaning of the explicit language of the clause to bring his "substantial" performance within its terms. Today, it is difficult to indicate what set of facts will excuse performance by the insurance company under the iron safe clause.

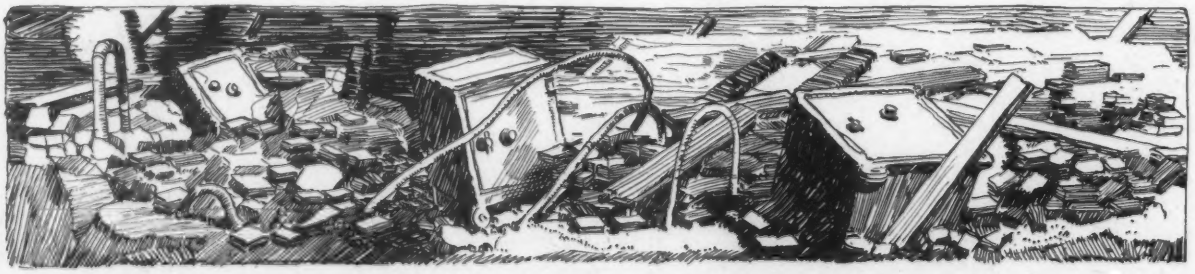
In analyzing the courts' interpretation of any clause in an insurance policy, it is necessary to distinguish between *representations* and *warranties*. A representation need be only substantially performed. If its purpose is accomplished by a set of facts other than those contemplated by the terms of the representation, the courts will usually hold that the insured has done all that may be required of him. The strict and formal compliance with a warranty, on the other hand, it is usually said, is a condition precedent to a recovery upon the policy. The insured has no right to his insurance money unless the requirements of the warranty have been diligently performed.

THE iron safe and inventory clause is usually incorporated into the policy and unequivocally labeled and called a *warranty*. Thus by the cannons of insurance law it should, in most jurisdictions, be strictly interpreted. In some states, however, the legislature has enacted that "a warranty in a fire insurance policy not materially affecting the risk shall be construed as a representation" and under such statutory provision it has been held that where there is a breech of an agreement to keep a set of books in an iron safe, it is immaterial and fails to prevent a recovery on the policy in the absence of proof by the insurance company that the breech of the agreement contributed to the loss.[1]

The courts of Kentucky reached the same result even in the absence of statute. "A failure to comply with such provision, (the iron safe and inventory clause) although in the policy, would not work a forfeiture thereof," the court said. "It is without consideration. It does not increase the risk, and, at most, would only tend to the better preservation of evidence to show the amount of the loss sustained in case of fire. It does not seem to us that it is competent to contract with the assured for the preservation of testimony in behalf of either party."[2]

The reasoning of this Kentucky court is palpably illogical. The clause is obviously part of the entire consideration paid by the insured in exchange for the protection he receives. This decision stands alone, and does not, so far as I am able to discover, represent the rule of any other jurisdiction. In a few states, the clause is practically voided by statute, but generally throughout the United States a failure to comply with the clause will, with certain limitation now to be discussed, prevent the insured from recovering upon his policy in a suit against the insurance company. An absolute disregard of the clause and a complete failure to keep any books, relieves the company from any liability under the policy.[3]

HOWEVER, the clause called a warranty and therefore presumably demanding strict compliance as a prerequisite for the recovery, is invariably liberally interpreted in favor of the policy holder. In the leading case of Liverpool, London and Globe Insurance Company v. Kearney,[4] the insured had secured from the defendant company a fire insurance policy requiring the books, etc., to be kept in a fireproof safe and reciting that unless the account books and inventories could be produced after the fire, the policy would be void. A fire started in the neigh-



Papers in Safes Which Lie Among Smouldering Ruins May Be Worth Fortunes—If Intact.

borhood and the insured removed his books from his safe to take them out of the danger zone and to place them in a secure depository. In so doing he lost his inventory. The evidence indicated that in the excitement, it may have been left in the safe which proved not to be fireproof and which was destroyed by fire. The remaining books, however, sufficiently showed the state of the insured's stock at the time of the fire. When the insured sued to recover upon his policy, the Company defended pleading a failure to comply with the terms of the "fireproof safe" clause. The case eventually reached the United States Supreme Court which rendered a verdict in favor of the insured. In its opinion, the court indicated:

"Where a policy of insurance is so framed as to leave room for two constructions, the words should be interpreted most strongly against the insurer.

"A covenant and agreement to keep a set of books, showing a complete record of business transactions —together with last inventory, should not be interpreted to mean such books as would be kept by an expert bookkeeper—that provision is satisfied if the books kept were such as would fairly show, to a man of ordinary intelligence, all purchases and sales, both for cash and credit."

The safe did not have to be fireproof, in fact. "If the safe was such as was commonly used and such as, in the judgment of prudent men in the locality of the property insured, was sufficient, that was enough within the meaning of the words of the policy. — — — If the company contemplated the use of a safe perfect in all respects and capable of withstanding any fire however extensive and fierce, it should have used words expressing that thought. * * *

"We are of the opinion that the failure to produce the books and inventory referred to in the policy, means a failure to produce them if they are in existence when called for, or if they have been lost or destroyed by the fault, negligency or design of the insured."[5]

Following this decision, it has generally been held that the iron safe and inventory clause does not exact any specific system or form of books to be kept by the insured, nor does it require a scientific system. Books are kept, within the purpose of the clause, when a person of ordinary intelligence, who is accustomed to accounts, can understand them, and from them ascertain the amounts and value of merchandise on hand at the time of the loss.

Thus it has been held that what is sufficient to fulfill the requirement of the "iron safe" clause depends upon the nature of the business, the stock of which is insured.[6] Ordinarily, the question is presented to the jury for its decision,[7] but where the evidence is clear, it becomes the duty of the judge to decide as a matter of law if the books kept by the insured were sufficient to satisfy the requirements of the policy.[8]

THE test in all of these cases, to be decided by judge or jury, is whether the books sufficiently reflected the amount of stock on hand to enable an ordinary intelligent person to estimate the value of the stock. An inventory plus cash records is not sufficient to meet the requirements of this test, it being also essential to maintain records of sales made on credit, unless the business is of such a nature as not to warrant such a record.

PRIZE ESSAY CONTEST AWARD

The Decision in the Contest for the Best Essay on "What Is Fire Insurance?"

HAS BEEN POSTPONED

Because of Number of Essays Submitted and the Necessity of Further Conference of the Judges to Agree on the Three Best Among So Many Excellent Manuscripts

JOURNAL OF AMERICAN INSURANCE

Sales-slips, cash register slips and adding machine slips, kept with regularity and accuracy, which are pinned together and preserved, and accurately show the amount of sales, are, when supplemented by an inventory, sufficient to meet the requirements of our test,[9] though cash register slips by themselves have been frequently held not to be sufficient.[10]

Likewise, a set of books kept in a sketchy manner in Hebrew, was held to meet the requirements of the clause by a Georgian court, the books being in such shape that they could not be comprehended by a person who could understand the language and would to him reflect the value of the stock on hand.[11]

But all these cases, liberalizing the language of the clause in favor of the policy holder and extending its meaning to include a situation not within the contemplation of the parties when they entered into the agreement, do not permit a flagrant disregard of the clause. If the books are not kept in a safe at night and are thereby destroyed by fire, the insurance company need not pay the claim.[12] This is true even if the books are so large that they will not fit into the insured's safe. In addition, the books must be regularly kept, a hiatus of the entries for any considerable period being a violation of the terms of the clause.[13]

Many business men of moderate means and limited activity use their bank book or check book to indicate the state of their business. The stub of each check issued for stock received will contain a memorandum of the amount of goods bought, their value, etc. The deposits will show how current sales are drawing upon the stock on hand. In a number of instances the courts have indicated that such books may be sufficient to satisfy the terms of the policy, the question being the same as with more elaborate bookkeeping systems — do the books actually reflect the value and quantity of stock on hand at the time of the loss? If this question can be answered in the affirmative, the crudest entries scribbled in a bank book will suffice, whether they be made by the insured of by someone acting for him.[14]

A FINAL question concerns the wording of the clause and the period during which the inventory must be taken. A frequently quoted case decided in Nebraska[15] concerned the clause at it appeared in a policy running for only one year, and which was worded substantially as follows: "The insured shall take an inventory of stock hereby covered at least once a year during the life of the property and shall keep books of account correctly detailing all purchases and sales of said stock," and stipulated further that a failure to comply with "any one of the above conditions should render the policy void and work a forfeiture." The policyholder apparently completely disregarded the terms of this clause and after the loss, the court held that the insured had a year in which to take an inventory and that until he took such an inventory the entire clause, both as to inventory and account books, was suspended. This interesting holding was based upon two grounds; first, that the company by choosing to cast the provisions as to inventories and books in the same clause had chosen to permit them to

(*Continued on following page*)

Northwestern Mutuals Gather In Convention

OF MUCH interest to the Mutual world in general and especially to the territory represented by the delegates, was the proceedings of the Northwestern Association of Mutual Insurance Companies held at the Curtis Hotel in Minneapolis, on June 8th and 9th.

This progressive association had a program prepared which would have been a proud achievement of even a national gathering. The addresses were of a timely and constructive nature and many problems were discussed with great benefit to all who attended.

In reporting the election of officers particular note should be made of the choice of Mrs. A. J. Dahlstrom for the position as treasurer. She is the secretary of the Retail Merchants Mutual Insurance Company of Minnesota, and one of the very few to have held a similar office. The new honor came to Mrs. Dahlstrom because of her splendid record as an executive and marked ability to handle difficult business details.

Other officers chosen were:

President, D. W. Clark, Valley City, North Dakota
Vice President, J. L. Coon, Cedar Rapids, Iowa
Secretary, O. M. Thurber, Owatonna, Minnesota
Treasurer, Miss A. J. Dahlstrom, Minneapolis

Directors

O. M. Thurber, Chatfield, Minnesota
F. H. Wilder, Fargo, North Dakota
D. O. Milligan, Des Moines, Iowa
Geo. Janssen, Mayville, Wisconsin
Roy Nugen, Sioux Falls, South Dakota

The program was as follows:

PROGRAM

Wednesday, June 8th

Morning

9:00 Registration.
10:00 Call to Order and President's Annual Message. S. H. Scallen, Mitchell, South Dakota.
Secretary's Annual Report, O. M. Thurber, Owatonna, Minnesota.
Treasurer's Annual Report, H. L. Hjermstad, Red Wing, Minnesota.
Address, "Adjustment Problems," J. W. Baker, of Main, Baker & Wright, Adjusters, Minneapolis, Duluth and Fargo.
Discussion.
Appointment of Committees.
Adjournment.

Afternoon

2:00 Call to Order.
Question Box in Charge of Hjalmar L. Hjermstad, Red Wing, Minnesota.
Address, "Insurance Education," John H. DeWild, Editor Northwest Commercial Bulletin.
Discussion.
Address, "The Three Laws of Management," Dr. Stanley L. Krebs, Fairland, Indiana.
Discussion.
New and Unfinished Business.
Adjournment.

Thursday, June 9th

Morning

9:30 Call to Order.
Question Box in Charge of Geo. A. Jacobs, Janesville, Wisconsin.
Address, "Rating Problems," Arthur E. Strudwick, Chief Inspector, General Inspection Bureau.
Discussion.
Address, "The Double Pull in Insurance Salesmanship," Dr. Stanley L. Krebs.
Discussion.
New and Unfinished Business.
Adjournment.

Afternoon

2:00 Call to Order.
Question Box in Charge of Miss. A. J. Dahlstrom, Minneapolis, Minnesota
The Mutual Reinsurance Bureau, Donald A. Tripp, Belvidere, Illinois.
Reports of Committees.
New and Unfinished Business.
Election and Installation of Officers.
Adress, "Problems of Mutual Insurance Companies," H. P. Janisch, Chicago, Illinois, General Manager American Mutual Alliance.
Adjournment.

Evening

6:30 Mutual Banquet, Curtis Hotel. Informal. The Ladies our special guests. Everyone connected with Mutual Insurance invited.
Address, "Bouncing the Blues," Dr. Stanley L. Krebs.
Entertainment by Great Northern Girls' Quartette, Courtsey Great Northern Railway Company.

Safe Keeping of Records

(*Continued from preceding page*)

operate concurrently, and as no inventory was required within the year, no books were required within that period, and secondly, because account books by themselves, in the absence of a basic valuation fixed by an inventory were worthless, for the purpose of estimating the extent of the loss.

The affect of this case has been largely avoided by changing the wording of the clause so that now most policies require the insured to take a new inventory within thirty days after the issuance of the policy, unless he has made a complete itemized inventory at a regular inventory period within the year preceding the issuance of the policy.

[1]102 N. W. 582 (Iowa); 101 N. W. 517 (Iowa); 193 N. W. 563 (Iowa).
[2]38 S. W. 1067 (Ky.); see also 49 S. W. 543 (Ky.).
[3]127 Md. 140.
[4]180 U. S. 132; same case 21 Sup. Ct. Rep. 326.
[5]The Texas Case Roberts, Willis & Taylor Co. v. Mutual Insurance Co. 48 S. W. 559 is contra the Supreme Court decision.
[6]156 Pac. 204; 127 Ga. 491; 9 L. R. A. (N. S.) 667.
[7]106 S. W. 203.
[8]237 Fed. 171.
[9]221 S. W. 630.
[10]79 S. W. 7.
[11]130 Ga. 170; same case 60 S. E. 531.
[12]27 S. E. 180.
[13]77 So. 156.
[14]289 S. W. 703.
[15]118 N. W. 65.

The Only Thing

"Papa, what is an echo?"

"An echo, my son, is the only thing in the world that can keep a woman from having the last word."

Hardware Clerk (to lucky stockbroker)—I suppose you've pulled off any amount of good things lately?

The Broker—I picked up a good thing lately. It stood at 44 when I discovered it, and last week it touched 78.

Clerk—Good heavens! What was it?

Broker—A thermometer.

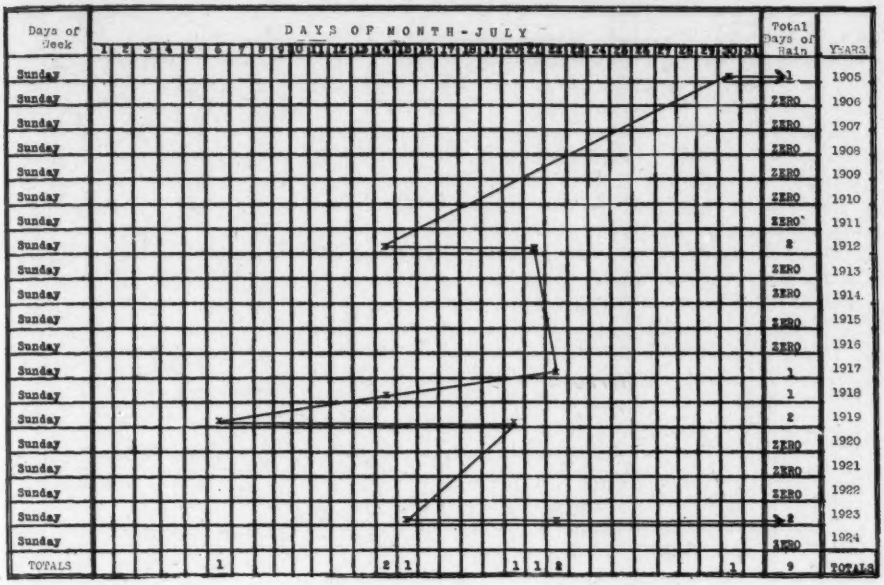


Plate No. I—Rainfall Diurnals—Rainfall Occurrence—July. Correlation of days of the week (Sunday) with a tenth (0.10) of an inch or more of Rainfall between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

Observations by Automatic Self-Recording Raingage checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The letter (X) in the Rainfall-Graph Lines distinguishes the day and year of measured and recorded precipitation. The Graph-Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols—Zero indicates Absence of Rainfall in the amount of a Tenth of an Inch or More, between the Hours of 2 P. M. and 9 P. M., Daily.

The Small Crosses (X) Show the Days and Corresponding Years on which a Tenth of an Inch or More Fell between the Hours of 2 P. M., and 9 P. M.

The Totals Show the Frequency of Daily Rainfall, Relatively, According to the Days of the Month.

The Rainfall Hazard

Fundamental Factors Related to This Weather Risk and Their Practical Application to Underwriting

By COLONEL JOHN P. FINLEY

Consulting Meteorologist and Manager National Storm Insurance Bureau, New York City

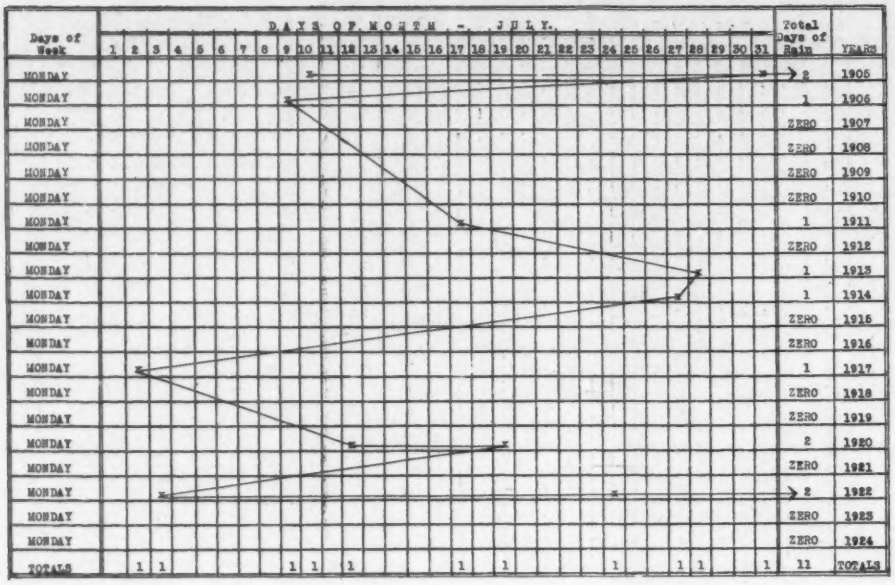
Article IV. Rainfall Diurnals.
FOURTH SECTION.

IT HAS recently been restated "that the very existence of the human race depends upon its capacity to adjust its behavior to the exigencies of climate and weather, and that any ignorance of meteorology which is avoidable is inexcusable." We are brought face to face with the extraordinary exigencies of the weather that has resulted in the conditions of the Mississippi Flood, the greatest and most destructive experience of this character in the history of the United States. The heaviest prior flood recorded occurred in 1844. Other serious floods in the Mississippi occured in 1882 and in 1922. Based on the heights reached in the latter year the levees were raised three feet for the accomplishment of which Congress appropriated sixty million dollars.

Prior to 1879 when the Federal Government engaged in levee construction, the people of the Mississippi Valley had already expended one hundred millions on the levees. From that date to the great flood of 1922 ninety millions more were expended on the levees, fifteen millions of which had been supplied by subscription from the States of Louisiana, Mississippi, Arkansas, Kentucky, Missouri, and Illinois. This levee system was designed to protect an area of 30,000 square miles. The great flood of 1927 has definitely demonstrated that the three-foot margin provided for by the levee system undertaken, in consequence of the flood of 1922, is wholly inadequate to protect the Mississippi Basin from the Cairo section to the Gulf. The Engineer Corps of the Army appear to believe that the solution of flood control involves higher levees and levees farther apart, probably augmented by a system of permanent spillways, similar to the temporary crevasse recently opened by dynamite in the Poydras section below New Orleans. When given a permanent character such a spillway would be protected by proper masonry construction, such as exists in the splendid construction of Chagres Spillway at the Gatun Locks of the Panama Canal.

THE Engineer Corps of the Army made an elaborate, exhaustive and valuable hydrographic and hydraulic survey of the Mississippi Basin in 1867, having in view the adoption of an adequate system of flood control.

In 1875, under State control, Captain Eads began the construction of his famous Jetties System, completed in 1877, designed to carry out the natural mouth of the South Pass, so as to keep the main-river stream together and scour out a navigable passage to deep water. He finally secured a twenty-foot channel, so constructed as to be maintained by the river itself, where before only a depth of eight feet had existed. The Jetties System was not accomplished with a view to flood control, but rather to overcome the silting of one of the best outlets to the Gulf. In this connection it should be kept in mind that the entire State of Louisiana is practically all of alluvial deposit, built up from the silt, brought down by the Mississippi, and which has thrust out a long point into the Gulf, known as the "Sugar Bowl." In consequence of the down-wash of the river—sedimentary matter—the soil has been greatly enriched, and successive overflows have added food values to the soils, as occurs with the overflow of the Nile in Egypt. The climate is semi-tropical and the State particularly well adapted to the growth of rice, cotton, sugar-cane, sweet potatoes, yams, tobacco, and all sub-tropical fruits and nuts in profusion. Nearly all the sugar-cane and molasses produced in the country comes from Louisiana; at least


Days of Week
DAYS OF MONTH - JULY
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Total Days of Rain
YEARS
MONDAY 2 1906
MONDAY 1 1906
MONDAY ZERO 1907
MONDAY ZERO 1908
MONDAY ZERO 1909
MONDAY ZERO 1910
MONDAY 1 1911
MONDAY ZERO 1912
MONDAY 1 1913
MONDAY 1 1914
MONDAY ZERO 1915
MONDAY ZERO 1916
MONDAY 1 1917
MONDAY ZERO 1918
MONDAY ZERO 1919
MONDAY 2 1920
MONDAY ZERO 1921
MONDAY 2 1922
MONDAY ZERO 1923
MONDAY ZERO 1924
TOTALS 1 1 1 1 1 1 1 1 1 11 TOTALS

Pate No. II—Rainfall Diurnals—Rainfall Occurrence—July. Correlation of days of the week (Monday) with a Tenth (0.10) of an inch or more of Rainfall between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The letter (X) in the Rainfall Line distinguishes the day and year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols—Zero indicates Absence of Rainfall in the Amount of a Tenth of an Inch or More, Between the Hours of 2 P. M. and 9 P. M., Daily.

The Small Crosses (X) Show the Days and Corresponding Years in which a Tenth of an Inch or More Fell Between the Hours of 2 P. M. and 9 P. M.

The Totals show the Frequency of the Daily Rainfall, Relativey, According to the succession of the Days of the Month.

the best of that product. The State ranks fifth in petroleum output and its manufacturing industry has a yearly value of nearly seven hundred millions. These are important points for weighting in considering the insurance prospects in this southern State, where in spite of floods its people prosper, for even the floods bring riches.

The Indians knew the climatic and physical characteristics of the Mississippi Basin and gave it the name which, in their dialect signified GREAT RIVER; sipy or sape meaning river or running water, and the prefix meaning great or big. The early French explorers wrote the name "Missoissippy" and "Meschasipi." The Indians trapped and hunted extensively in Louisiana. Today trappers conduct a very lucrative business in the sale of the skins of the muskrat, opossum, racoon, mink and other fur-bearing animals.

The flooding of the Mississippi Basin is primarily a problem in the occurrence and distribution of rainfall, or more comprehensively speaking, atmospheric precipitation. The progress of the flood is gradual as its advent into the Basin moves slowly eastward from the headwaters of the Western Tributaries. To discover the *signs* of the beginning we must begin to check up the rainfalls, several months in advance, in the States, north of Texas and Louisiana to the Canadian Border, forming the great water-shed of the Eastern Rocky Mountain Slope. Excessive rains there will gradually move down to crest the trough of the great Central Basin of the country. These local crests will progress eastward, with the easterly trend of the Cyclonic Lows, crossing the country from the Pacific to the Atlantic in endless procession with a frequency rate of about 120 per year.

THE floods of the great Central Basin are always Spring Floods because the rainfalls of that season are always augmented by melting snow and melting ice. If the preceding winter has been cold, with heavy

Pate No. III — Rainfall Diurnals — Rainfall Occurrence—July. Correlation of days of the week (Tuesday) with a Tenth (0.10) of an inch or more of Rainfall between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The letter (X) in the Rainfall Lines distinguishes the day and year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols—Zero indicates Absence of Rainfall in the Amount of a Tenth of an Inch or More, Between the Hours of 2 P. M. and 9 P. M., Daily.

The small crosses (X) Show the Days and Corresponding Years on which a Tenth of an Inch or More Fell Between the Hours of 2 P. M. and 9 P. M.

The Totals Show the Frequency of Daily Rainfall, Relatively, According to the succession of the Days of the Month.

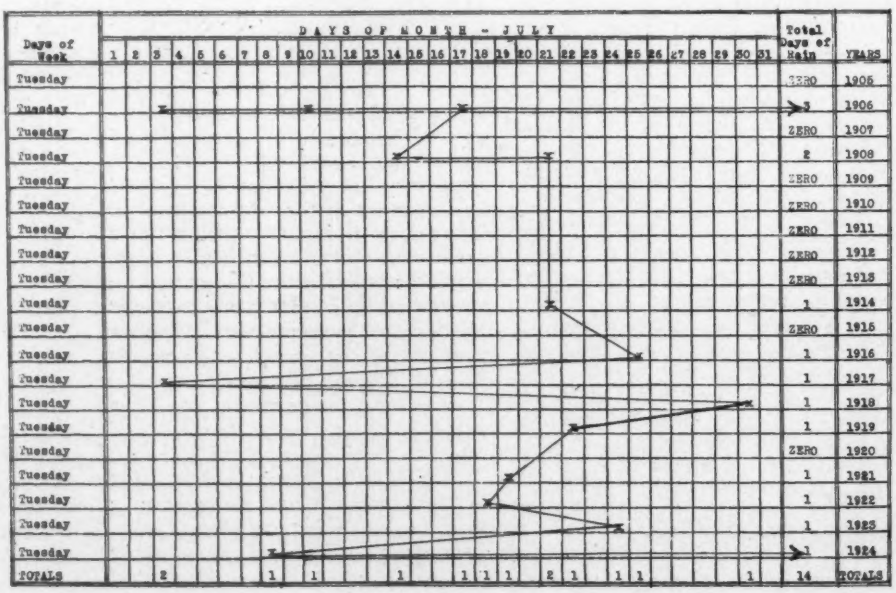

Days of Week
DAYS OF MONTH - JULY
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Total Days of Rain
YEARS
Tuesday ZERO 1905
Tuesday 2 1906
Tuesday ZERO 1907
Tuesday 2 1908
Tuesday ZERO 1909
Tuesday ZERO 1910
Tuesday ZERO 1911
Tuesday ZERO 1912
Tuesday ZERO 1913
Tuesday 1 1914
Tuesday ZERO 1915
Tuesday 1 1916
Tuesday 1 1917
Tuesday 1 1918
Tuesday 1 1919
Tuesday ZERO 1920
Tuesday 1 1921
Tuesday 1 1922
Tuesday 1 1923
Tuesday 1 1924
TOTALS 2 1 1 1 2 1 1 1 1 14 TOTALS

Plate No. IV — Rainfall Diurnals — Rainfall Occurrence—July. Correlation of days of the week (Wednesday) with a Tenth (0.10) of an inch or more of Rainfall between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

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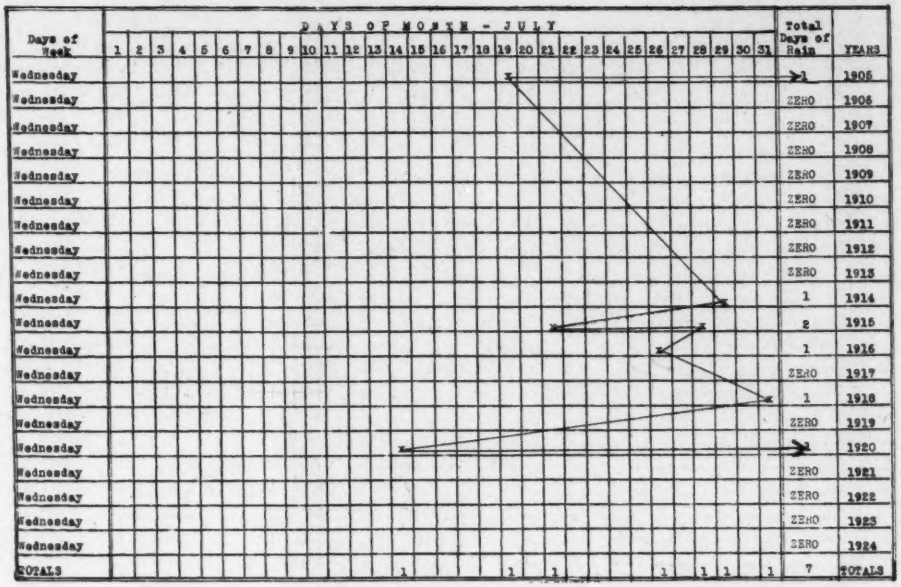
Explanation of Terms and Symbols—July. Zero indicates Absence of Rainfall in the Amount of a Tenth of an Inch or More, Between the Hours of 2 P. M. and 9 P. M., Daily.

The small crosses (X) Show the Days and Corresponding Years on which a Tenth of an Inch or More Fell Between the Hours of 2 P. M. and 9 P. M.

The Totals Show the Frequency of Daily Rainfall, Relatively, According to the succession of the Days of the Month.



accumulations of snow and ice, excessive Spring rainfalls will surely result in local-river and Central-Basin floods. In the conservation of natural forces there is a constant and invariable tendency to maintain an equilibrium between the seasons. Therefore a distinctively open winter is usually followed by a distinctively closed and cold summer. This was notably the case in the famous year 1816, known in both the United States and Europe, as "The Year Without a Summer," "The Poverty Year," and the "Year 1800-and-F r o z e-to-Death." The preceding winter had been "so mild that most persons allowed their fires to go out and did not burn wood except for cooking." February was mild, and so was March, aside from being windy. The cold set in after April 15th, and by May 1st, "winter temperatures prevailed with plenty of snow and ice." By the end of May all crops and buds were killed by intense cold. June was a continuation of snow and ice with occasional blizzards. July came in with snow and ice, and any vegetation that had survived the rigors of May and June were now killed by frost and cold. August proved the worst month of all. Snow fell in many places and almost every green thing in this country and Europe was blasted and killed by frost and cold. On August 20th, a severe hailstorm occurred at Cincinnati with falling chunks of ice from 3 to 12 inches in circumference. During September conditions returned to the measure of normality.

Other cases can be cited similar to that of 1816. In 1741 "the winter was intensely cold. The Delaware froze over and closed from the 15th of December to April 1st. Many animals died of hunger and cold. Snow fell throughout April, in some places to a depth of three feet. After May 1st, the weather became very warm and the whole summer was intensely hot." The "winter of 1779 was very mild and trees and shrubs were in full blossom in February. After the middle of May the weather turned warm and became excessively hot during the summer." "The winter of 1714 was very mild after the 15th of January; trees and shrub-

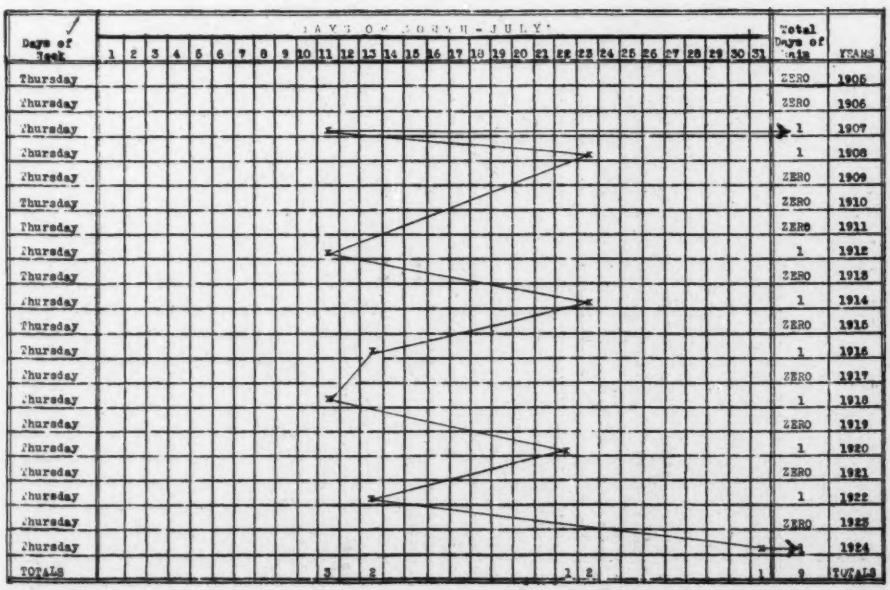


Plate No. V—Rainfall Diurnals—Rainfall Occurrence—July. Correlation of days of the week (Thursday) with a tenth (0.10) of an inch or more of Rainfall between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruemnts located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The letter (X) in the Rainfall Lines distinguishes the day and year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

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The small crosses (X) Show the Days and Corresponding Years on which a Tenth of an Inch or More Fell Between the Hours of 2 P. M. and 9 P. M.

The Totals Show the Frequency of Daily Rainfall, Relativey, According to the succession of the Days of the Month.

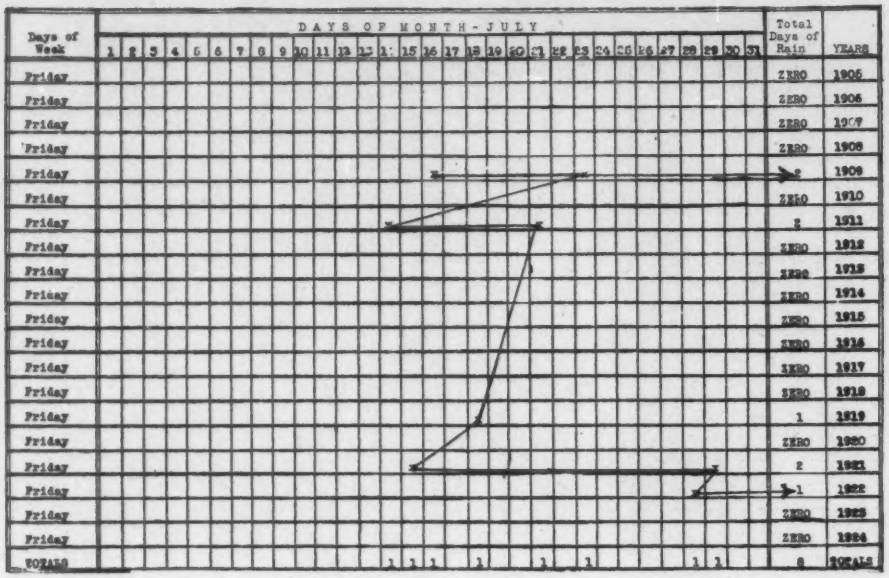


Plate No. VI — Rainfall Diurnals — Rainfall Occurrence — July. Correlation of days of the week (Friday) with a tenth (0.10) of an inch or more of Rainfall between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The letter (X) in the Rainfall Lines distinguishes the day and year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols— Zero indicates Absence of Rainfall in the Amount of a Tenth of an Inch or More, Between the Hours of 2 P. M. and 9 P. M., Daily.

The small crosses (X) Show the Days and Corresponding Years on which a Tenth of an Inch or More Fell Between the Hours of 2 P. M. and 9 P. M.

The Totals Show the Frequency of Daily Rainfall, Relatively, According to the succession of the Days of the Month.

bery were in bloom the first week in February, and the Spring was unusually mild, but the summer was cold and almost cropless."

The accumulation of the snow and ice of a "year without a summer" is carried over into the succeeding autumn and winter, and therein materially added to. The pendulum swings the other way in the conservation of forces, and a colder winter is succeeded by a warmer summer, with a big stock of snow and ice on hand to melt and develop flood crests in the local rivers, even without the assistance of abnormal rains. It is apparent that we have preeminently before us the circumstances of THE RAINFALL HAZARD. As the Cyclonic Lows advance eastward from the Pacific their load of water vapor is deposited on the windward side (westward slope and watershed) of the Coast Range, Sierra Nevada, and Rocky Mountain Ranges, and would enter the great Central Basin as Dry Lows, but for the presence of the Gulf of Mexico which, when the barometric gradient is favorable, sends forth a vast volume of moisture—laden southerly winds of high temperature that quickly changes the Dry Lows into wet Cyclonic Storm Areas of great potential force. The LOWS linger while recovering their energy on the eastern slopes and may subdivide into one or more secondary areas, increasing the Rainfall Spread as well as the depth of the fall. As the LOWS progress eastward there is a second retardation on the windward slopes of the Appalachian Range, but this temporary check is quickly overcome by the advance of the warm, moisture-laden winds from over the region of the Gulf Stream, as it courses northeastward in the western sector of the Atlantic. Some of the western Cyclonic Lows pass eastward around the northern and southern termini of the Appalachian Range with retardation practically nil. Different water-sheds give different rates of surface run-off, even for the same amounts of fall, resulting in different stream-flows and and flood-crests in the local tributaries to the Central Basin. These differences are due to soil conditions

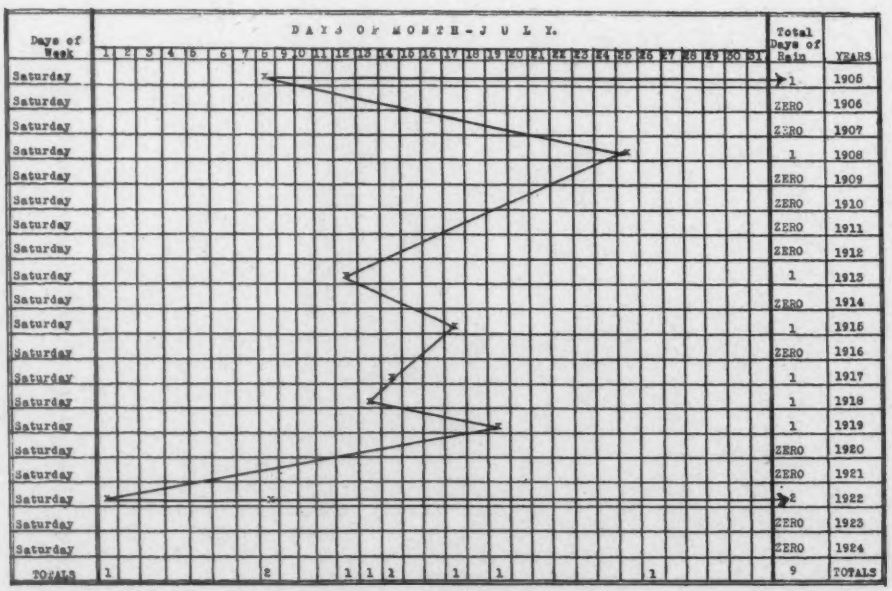
Plate No. VII—Rainfall Diurnals— Rainfall Occurrence—July. Correlation of days of the week (Saturday) with a tenth (0.10) of an inch or more of Rainfall Between the hours of 2 P. M. and 9 P. M. During a period of twenty years (1905 to 1924 inclusive) at the U. S. Weather Bureau Station, New York City.

Observations by Automatic Self-Recording Raingage checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The letter (X) in the Rainfall-Graph Lines distinguishes the day and year of measured and recorded precipitation. The Graph-Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols— Zero indicates Absence of Rainfall in the amount of a Tenth of an Inch or More, between the Hours of 2 P. M. and 9 P. M., Daily.

The Small Crosses (X) Show the Days and Corresponding Years on which a Tenth of an Inch or More Fell Between the Hours of 2 P. M. and 9 P. M.

The Totals Show the Frequency of Daily Rainfall, Relativey, According to the Days of the Month.



and the steepness of the water-sheds. All of these varying conditions must be taken into account by the flood-control engineer in his solution of hydrological problems.

WE have been writing on THE RAINFALL HAZARD, with earnestness and thoroughness, in the various articles appearing in the JOURNAL OF AMERICAN INSURANCE since September 1926. Public and individual heed should be given these discussions, as a matter of general enlightenment, so that all classes of people may have a better understanding of the tremendous importance and influence of atmospheric precipitation as related to agricultural and commercial interests. Such information should be absorbed with the view of timely and practical preparation for the disposition of the massing of those storm waters that form the excess-run-off of drainage areas, contributing to stream-flow in the upper reaches of the local rivers, apparently in a harmless way, but yet containing the potential energy of a mighty destructive force, when mobilized with unrestricted opportunity for connecting up with the trough of the great Central Basin.

The gentle patter on the roof, the glistening droplets on the flower petals, and the jeweled vesicles trimming the blades of vegetation, ordained and formed to serve a beneficent purpose, may yet become, under other conditions and combinations, a powerful agency of destruction. Therefore watch the rain-drop and beware of its agglomeration for the manifestation of hidden forces. We must know how to lessen this sinister influence and convert the lurking potential into productive channels, or provide adequate escape for the accumulated energy that it may pass, in a harmless way, to another section of nature's economical distribution of latent forces, and taper off at the general outlet, where the flood-crest remains at zero, regardless of its height in the upper reaches of the trough.

The pent-up energy of an inch of rain may be expressed by the various computations, but the following comparison will suffice to represent it. An acre of ground contains 43,560 square feet and an inch of rain falling on that surface will give 6,272,-640 cubic inches of water, equal to—3,630 cubic feet. At about 62.4 lbs., per cubic foot of pure water, the weight of the above accumulation will be 226,512 lbs., or about 113

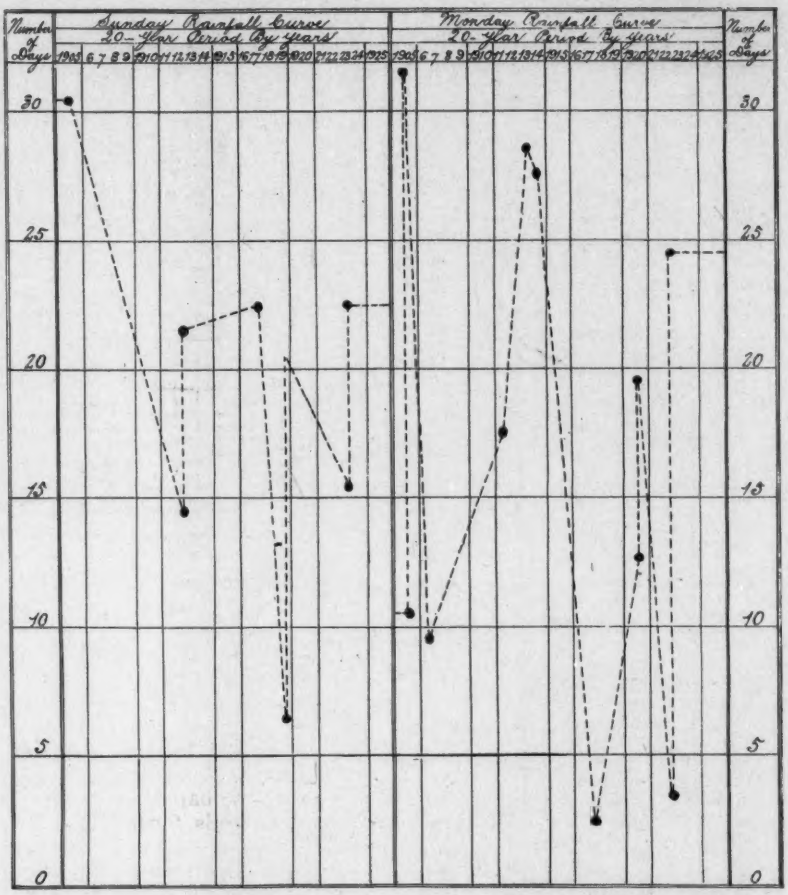


Plate No. VIII—Daily Rainfall Curves—July. For the Crucial-7-Hour Hazard 2 P. M. to 9 P. M. and the Crucial-Wetting-Loss-Hazard of a Tenth of an Inch or More.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The Circular Dots (●) in the Rainfall Curves mark the day and Year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation; Terms and Symbols—The days and years of no Rainfall are indicated by the Horizontal Intervals between the Circular Dots ( ) marking the Sections of Curve-Graph Lines. Horizontal Amplitude shows yearly range and variation. Vertical Amplitude shows daily range and variation.

tons. By another conversion it will appear as 27,143 gallons of water, spread over the acre-surface, equivalent to 604 barrels of about 45 gallons each. Computed for the surface of an 8-inch circular collector, the water at the maximum density, 39 degrees Fahr. the weight of one inch will be one pound and thirteen ounces. In this manner one can make an approximation of the latent dangers associated with the mass accumulations of rainfall. The amount of the storm-water run-off from the earth depends upon the nature of the soil, its condition as to temperature, its elevation above sea-level, and the inclination of the surface to the horizontal plane of the earth's ecliptic. From steep, rocky inclines there would be a larger percentage of run-off than from a porus soil on the horizontal. In the latter case most of the fall would be absorbed and the surface-run-off practically nil. In the event that this absorbed fall reaches quickly a hard-pan subsoil, most of it would reach the streams by seepage flow. In the study of run-off from water-sheds there are many factors to be considered by the engineer.

THE escape of residual storm-water must find its ultimate goal in the sea, with its general level below that of the land areas surrounding it. In the perpetual round, between land and sea, of the circulating moisture, by the means of evaporation and condensation, we have the endless procession of rainfall to rainfall through the interven-

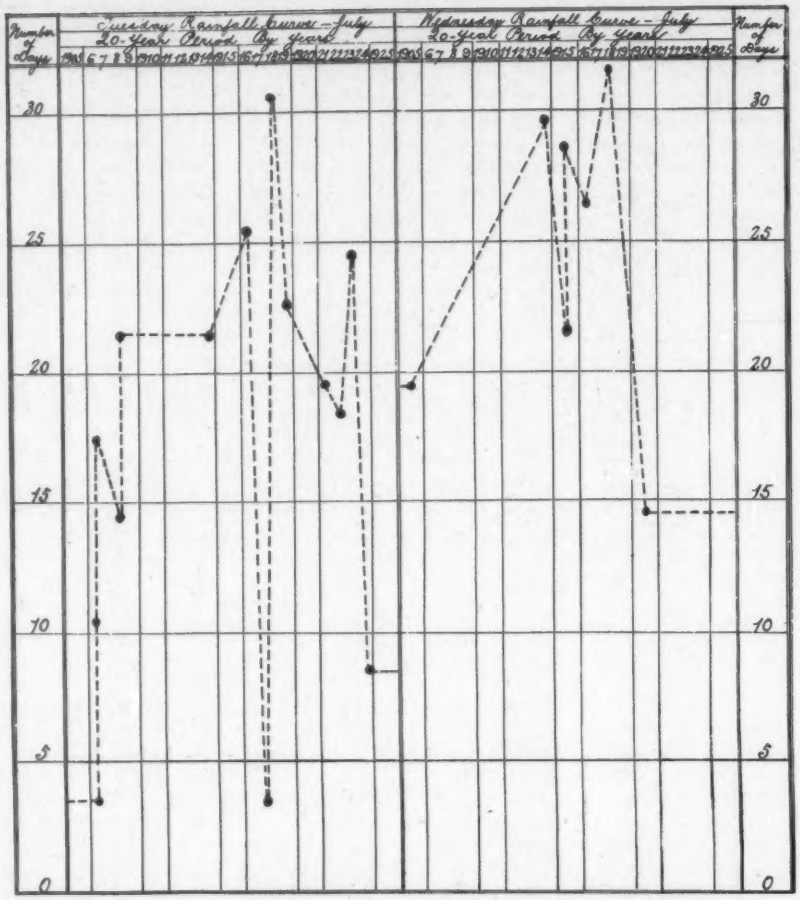


Plate No. IX—Daily Rainfall Curves—July. For the Crucial-7-Hour-Period 2 P. M. to 9 P. M. and the Crucial-Wetting-Loss-Hazard of a Tenth of an Inch or More.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Rainage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The Circular Dots (●) in the Rainfall Curves mark the day and year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols—The days and years of no Rainfall are indicated by the Horizontal Intervals between the Circular Dots (●) marking the sections of the Curve-Graph Lines. Horizontal Amplitude shows yearly range and variation. Vertical Amplitude shows daily range and variation.

tion of solar and terrestrial radiation. Every source of moisture, every streamlet, every stream, every river, every accumulation of snow and ice has its origin in rain. Water is never motionless, either in the depth of the oceanic basin, in the solid ice or in the vapor of the atmosphere. Solar radiation keeps it on the move. Water vaporizes at all temperatures, returns to the earth from this gaseous state, through condensation, circulates by surface-flow and seepage-flow, through stream-flow back to the sea, there to commence the travel over again, from water areas to land areas and return. The established channels of stream-flow must be recognized, surveyed, minutely studied, mapped, protected and maintained to carry on the work of interchange, between water and land areas through the processes conducted in nature's laboratory. If this natural round be interfered with and neglected by the works of man, then nature will inevitably continue to destroy those works until man will adequately recognize and provide for the uninterrupted flow of nature's forces, in the presence of man's artifical interjections. The right of way belongs to nature and man must learn how to pacify her and accomodate himself to her superior requirements. In this manner the Engineer Corps of the Army, after 50 years of concentrated effort on flood-control, in the great Central Basin of the country, have found that the estimated 3-foot marginal rise in the levee system for the flood of 1922 will not provide for the flood stages of 1927. Nature demands a revision of that system and there is no appeal from that requirement. Gen. Jadwin, the present Chief of Engineers says that "the St. Lawrence River is perhaps the most admirably controlled stream in the world, and why? Because the Great Lakes serve as the headwater reservoirs of that commanding river and release the flood waters gradually, preventing flood-crests and overflows. Based on the actual relative volume of water, between the St. Lawrence and the Mississippi, it would require about twenty lakes, the size of those at the head of the St. Lawrence to control the Mississippi. Where would you put them and how would you retrieve the loss involved in the submerged land?" It is evident that the creation of headwater reservoirs, for the flood control of the great Central Basis, as proposed by some theorists on the subject, is quite impracticable.

The greatest channels of stream-flow in the United States are the Mississippi Basin, the Colorado Basin, the Rio Grande Basin, the Columbia Basin, the Missouri Basin, the Ohio Basin, the Arkansas Basin, the Red River Basin, and the Hudson River Basin. The king of all these basins is the Mississippi, with its 1,240,050 square miles, or about 41% of the total area of the United States. While no single Rain-Spread has probably ever covered this enormous area at one time, yet the successive Rain-Spreads of an advancing Cyclonic LOW have eventually covered the headwaters of the tributaries of the Central Basin and started their flood crests for the central trough. The flood effect is thereby accomplished. Extending north and south across the entire breadth of the country, and rearing its enormous sides to the summits of the Rocky Mountain Range on the west, and to the summits of the Appalachian mountain range on the east, the trough bears some resemblance to a monster dry-dock with its towering sides extending far above the peak of the great Eiffel Tower, through which rolls to the sea the millions of tons of daily rainfall and melting snow, gathered on these flanks and swept down the inclines to the central trough, with its outlet in the great Gulf, as its nearest branch to the world-wide sea.

THE United States lies midway between the two greatest water reservoirs on the earth, the Atlantic and the Pacific Oceans. Into these boundless receptacles, the great

drainage basins of the United States must continually discharge. These basins each have their flood season, and it is the duty of man, as an inhabitant thereof to prepare for them, and to promote and maintain the channel best adapted to deliver the storm waters to the sea, with the minimum of destructive effect upon organized life and property, within the areas of such basins. Naturally and inevitably associated with these great interior drainage basins, are the tremendous engineering problems, involving the intricate questions of hydrology, and the interrelated sciences of meteorology, geography, geology, physiography, agriculture and forestry, with special consideration of the field of hydraulic engineering, of which hydrology is the basic study. Within the domain of hydrology we find the problems of hydro-meteorology in relation to the occurrence, distribution, frequency, variation and disposal of rainfall, and the run-off resulting therefrom in drought and flood.

As a matter of course, within the limits of our present discussion, we cannot enter into the details of the various engineering problems that arise when treating of flood control. Our purpose is to segregate the Rainfall Hazard as related to insurance coverage, in the underwriting of Flood, Rain and Crop risks. Here we find a great field of research work opening out before us. The vast property interests associated with each of the great river basins, we have enumerated, must be considered in the light of the restrictions and opportunities placed upon their development by the hazards of loss incident to the occurrence of rainfall and flood. These property interests will naturally seek protection through the agency of the great insurance organizations of the country, and the latter must fortify themselves against conflagration and prohibitive losses, by requiring business interests to aid in securing full compliance with the most modern and up-to-date requirements and developments in the field of advanced hydraulic engineering, coupled with its necessary factors and margin of safety. As the hazard multiplies so must the rate, the fulfillment of which is reflected in the higher net premium for Flood Insurance. Although outlined in a few words, the problem here indicated, involves an extraordinary amount of preparation in scientific investigation, drafting comprehensive plans and estimates, State and Federal legislation, administrative work, and the cooperation of scientific and educational institutions.

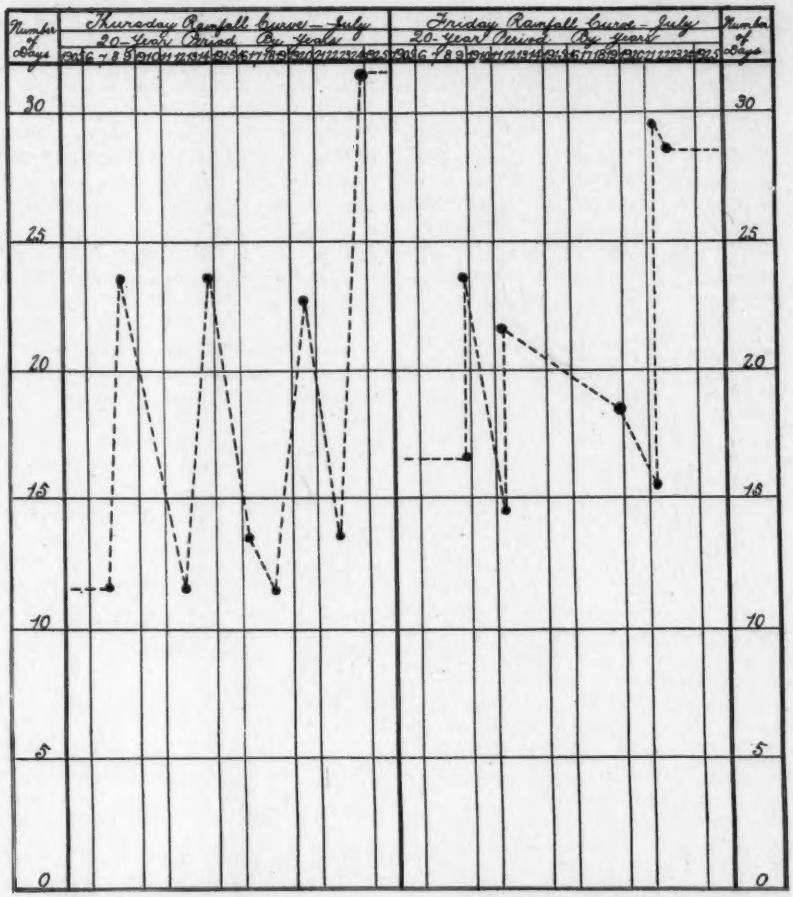


Plate No. X—Daily Rainfall Curves—July. For the Crucial-7-Hour-Hazard 2 P. M. to 9 P. M. and the Crucial-Wetting-Loss-Hazard of a Tenth of an Inch or More.

Observations made by Automatic Self-Recording Raingage and checked with a Direct-Measurement-Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments located on the roof of the Station Building, New York City, 394 feet above Sea-Level. The Circular Dots (●) in the Rainfall Curves mark the day and year of measured and recorded precipitation. The Curve-Graph Lines are formed on a uniform basis and progress from left to right in regular sequence.

Explanation of Terms and Symbols—The days and years of no Rainfall are indicated by the Horizontal Intervals between the Circular Dots (●) marking the sections of the Curve-Graph Lines. Horizontal Amplitude shows yearly range and variation. Vertical Amplitude shows daily range and variation.

Just what methods will finally be adopted by the combined efforts and judgment of all the varied interests, centered in the reclamation of the great drainage basins of the country, can hardly be predicted at this moment. Much will depend upon the action of the Congress at its next regular session. At present, for the Mississippi Basin, the control continues, as it has for many years, under the active direction of the Office of the Chief of U. S. Army Engineers at Washington, and the immediate supervision of the Mississippi River Commission, a U. S. Army agency at St. Louis, under the presidency of an Army Engineer Officer. During the present unprecedented flood stage, President Coolidge appointed Secretary Hoover of the Department of Commerce, to supervise and coordinate the vast work of all civil and military, and naval agencies, Federal and State, that naturally divides itself into six general lines of activity, and in the order of their development and maintenance, viz: (a) The saving of Life and property. (b) The formation of concentration camps for the proper housing and feeding of refugees. (c) The establishment of medical centers for the control of epidemics and the treatment of camp diseases. (d) The breaking up and consolidation of camps as the floods recede. (e) The return of refugees to their abandoned homes. (f) The reclamation of abandoned property and the furnishing of material assistance required to resume life at the old home-site. The solution of these problems requires the maintenance of a huge adminis-

trative force, working regardless of hours, economically and efficiently, in checking and overcoming an economic loss of one-half billion dollars, growing out of the flooding of three million acres of rich bottom lands, inhabited by one-and-one-half million people, 750,000 of which were flooded, 600,000 driven from their homes, and a great city of 500,000 people terrorized for weeks by the surging flood at their door-steps, only saved from destruction by dynamiting artificial crevasses in Poydras Bend, below the city limits.

During the floods of prehistoric times the Mississippi Basin was probably submerged to the extent of twenty million acres, over a breadth of 100 miles, extending from Cairo to the Gulf, a distance of 1000 miles. During the untold centuries succeeding the Ice Age, the recurring spring floods formed the great Mississippi Basin, and also the other great river basins we have mentioned. While vast quantities of rich alluvial soil have been carried out to sea, washed down from the mountain water-sheds, to the west and east of this great valley, yet the accumulations remaining, make this region the "Garden Spot of America," capable of sustaining many millions of population.

While this flood has been the greatest peace-time disaster in American history, it will result in developing the greatest reclamation project and industrial development in the world's history. The gigantic engineering problems involved, will focus the attention of the world upon the Mississippi Basin and upon the extraordinary development of the United States. It will direct attention to the vital influence of the Gulf of Mexico and the Gulf Stream, upon the climate and agricultural development of our country, and the importance of maintaining an adequate government service for the accumulation of meteorological experience, to aid in the solution of great industrial problems, especially those involving the flood factors of the many and diverse water-sheds of the country. The consensus of engineering experience and analytical thought upon the flood-control problems of the United States, will probably result in recommending to the Congress the execution of a combination project of spillways and levees, in the Mississippi Basin, provided with hydrological factors of safety, that will insure freedom from overwhelming loss.

IT must be apparent to the student and also to the casual reader of these articles on THE RAINFALL HAZARD, that the subject of the occurrence and distribution of precipitation in the United States, is of great complexity, as well as of great moment, in the solution of its industrial problems. The country is in need of the location and maintenance of many more rainfall stations of observation and record, with standard instruments, having in mind that rainfall normals, as the basis of computing reliable departures, and of ascertaining seasonal and periodical variations, should be determined from a record of 100 years or more. Insurance interests are vitally concerned in the solution of hydrological problems in the United States, for they will be called upon to protect the many avenues of developing business ventures, resulting from the renovation and reclamation of the Mississippi Basin. To date only a negligible participation has been taken in covering the risks of Flood, Rain and Crop Insurance, because the hazards were unknown, the people unacquainted with such a system of protection, and business interests compelled, or willing to be content with the government method of maintaining existing levees. Now, all of this ignorance, indifference and lethargy has been swept away by the peak of a catastrophe that has startled the country, if not the whole world, and has moved the greatest and richest nation on the earth to attack a problem of stupendous proportions and like stupendous possibilities, dwarfing the great engineering feat of the Panama Canal.

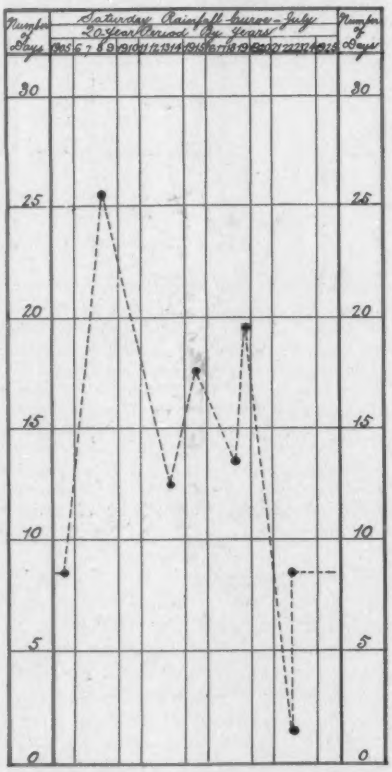


Plate No. XI—Daily Rainfall Curves—July. For the Crucial-7-Hour-Hazard 2 P. M. to 9 P. M. and the Crucial-Wetting-Loss-Hazard of a Tenth of an Inch or More.

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Whatever system of flood control may be adopted, through the concentrated efforts of Federal and State agencies, the former being the House Committees on Rivers and Harbors and on flood control, the Engineer Corps U. S. Army and the Mississippi River Commission, it is most important and particularly urgent that no time or money be wasted on visionary measures of relief. The time has now arrived for the most deliberate and basic action founded on carefully obtained and recorded experience. The Engineer Corps of the Army, and its local agency, the Mississippi River Commission, composed of four Engineer Officers of the Army, one engineer from the Department of Commerce and three members at large, all detailed and appointed by the President, have had entire supervision, through such an organization, of the flood problems of the Mississippi Basin for the past 48 years, and necessarily have collected and analyzed a vast fund of critical and exact data concerning all of the great river basins and watersheds of the country. Prior to that time the States of the Mississippi Valley had expended one hundred million dollars on the construction of levees, not only on Mississippi itself, but on a number of its western tributaries. Engineer Officers of the Army have been engaged on river and harbor work since the organization of the government. The U. S. Weather Bureau has been recording and discussing river stages throughout the country, floods, watersheds, drainage areas, and the occurrence and distribution of rainfall and snowfall for the past 56 years. Certainly from these vast Federal Sources the most reliable and exhaustive information can be drawn, on which to base a revision, in thorough-going fashion, of existing methods of flood control, and avoid the following of all impractical and fantastic schemes.

THE records of the U. S. Weather Bureau at Washington show that excessive rains and local floods began in the rivers of Kansas and Oklahoma in September 1926, and continued throughout the Autumn and Winter in the tributaries of the Lower Mississippi, more precipitation (Rain and Snow) descending upon the eastern water-shed than upon the western, but the latter has the largest number of tributaries and of maximum size, the Missouri alone being equal to all the tributaries on the eastern side and more.

The winter was warm in places with the snowfall above the normal, the melting of which, together with protected deposits of ice, added materially to the amount of storm-water run-off, increasing the stream-flow and flood-stage, especially in the western tributaries.

With the opening of the 1927 Spring there was no falling off in precipitation, but rather an increase, all stations showing a plus departure from the normal.

When the winter type of Cyclonic Lows should have been replaced by the Spring and Summer types of 1927, the former continued without abatement, thus resulting in a greater amount of precipitation and a continuation of the flood stages in both the Central Basin and its tributaries. The recurrence of the winter type of Cyclonic Low, even in June shows the exciting cause for continued heavy and general rains, with a greater number of violent local storms, occurring over the Mississippi Basin.

In contributing to the building up of the flood-crest in the Mississippi Basin, it is important to bear in mind the relation of storm movement (progressive-Cyclonic-Low circulation) to the general direction of the two sets of tributaries. Those on the west flank, draining the eastern-slope-watershed of the Rocky Mountain Range coincide in their stream-flow with the progressive easterly movement of the advancing Lows, thus tending to hasten the discharge the flood-crest of these tributaries into the trough of the Central Basin. While those on the east flank, draining the western-slope-water-shed of the Applachian Mountain Range, oppose in their stream-flow the progressive easterly movement of the advancing Lows, thus tending to retard the discharge of the flood-crest of these tributaries into the trough of the Central Basin. This retardation of the flood-crest in the eastern tributaries tends to reduce the pressure of the water in the central trough of the Mississippi, and to that extent protects the levees.

(To Be Continued In Next Issue)

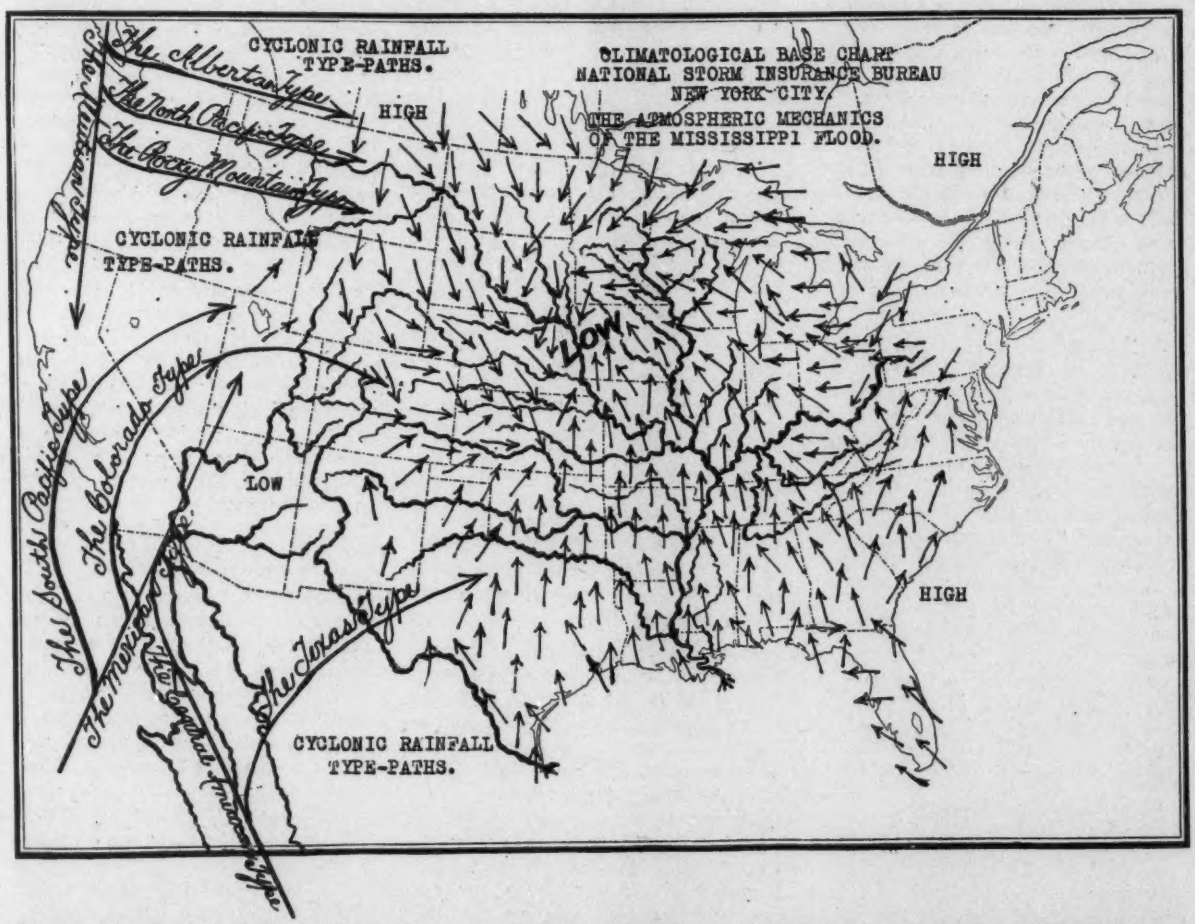

Plate No. XII—Explanatory Notes. Top of chart North. Arrows fly with the wind. Cyclonic (low) circulation from right to left, contra-Clockwise and upward at the center of low. Anticyclonic (high) circulation from left to right, clockwise and downward at the center of high. The rain area generally covers the entire cyclonic area as the low progresses eastward. Secondary lows increase the breadth and depth of the rain front. All storms cross the drainage area of the Mississippi Basin. The Gulf of Mexico furnishes an inexhaustible supply of storm food in the form of heat and moisture carried into the great hopper of the low by the Southerly winds.

Mississippi flood in active operation since April 13, 1927, when the U. S. Weather Bureau published the warning that the greatest flood in the history of the lower Mississippi Valley was Impending and to take all possible precautions to protect both life and property.

Property and Casualty Insurance

(*Continued from page 6*)

to sound insurance if the moral hazard in connection with all risks that are insured against could entirely be eliminated.

THE last requisite for sound insurance here to be considered centers around the idea of insurable interest. This is not easy to define or even to describe satisfactorily. In general, however, any interest in property capable of being evaluated is an insurable property interest. In connection with insurance contracts covering risks relating to property, it is indispensable to sound insurance that the insured should be financially interested in the property which he is about to insure. If the person who applies for the insurance has no monetary interest in the property covered by the insurance, he can suffer no loss if it is injured or destroyed, so that the principle of indemnity which is fundamental in sound property and casualty insurance cannot be applied. It is impossible for an insurance company to indemnify the insured when he suffers no monetary loss by the destruction or damage to the property covered. A so-called insurance contract giving coverage under these conditions would be in the nature of a wager.

The principle of insurable interest can well be illustrated through fire insurance. It is absolutely necessary that the person applying for fire insurance on a house, let us say, should have an insurable interest in the building. As already indicated, any interest that can be given a monetary value is, properly speaking, an insurable interest and is a fit subject of insurance. The owner of a mortgaged property, for example, can insure his equity in the building. The holder of the mortgage on the property in question is also said to have an insurable interest in the property up to the value of the mortgage, and may have such interest covered by insurance either directly by his own act or through the owner securing coverage for him. It is rather generally admitted, however, that the sum total of all the insurable interests in any property should not and cannot be greater than the fair value of the property in question. In general, a person has an insurable interest in any property, which interest may be made the subject of an insurance contract, when he would undergo a financial loss by the total or partial destruction of the property in question and when, all things considered, it would be to his financial advantage to have the property remain intact. Put in another way, an insurable interest exists when it would not be financially desirable for the person in question to have the property destroyed.

IF IT were possible for a person who has no insurable interest in a property to have it insured against fire, the moral hazard in connection with such property would be so great that the interests of the insurance company carrying the risk would be imperiled. If John Doe could insure his neighbor's house against fire and if John Doe happened to be an unscrupulous person, the neighbor's property might be caused to burn for any one of a number of motives. Thus, John Doe might need some ready cash at a time when all other possible methods of securing it than the prospect of collecting it from the insurance company were closed; or he might have a grudge against his neighbor, and so on. All these factors would tend to increase the hazards surrounding the property in question. John Doe would have no financial interest, in any event, in the preservation of the property, and the insurance company could not afford to insure it for John Doe or for any one else than the owner or mortgagee. Accordingly, it is a common practice for fire insurance companies to insist that the applicant for insurance must have a clear insurable interest in the property in question.

Farmers' Mutual Fire Insurance

(*Continued form page 10*)

when the death of such animal was not from causes insured against by fire companies.

No attempt will be made here to cover fully or technically the tests to be applied by adjusters of lightning losses among livestock. The following simple and common-sense tests may, however, be mentioned. Note whether or not there is evidence of a lightning stroke on nearby objects such as fences or trees, or on the ground beside or beneath the animal. Examine the ground also for evidence of struggle by the animal prior to death. Evidence of a lightning stroke on nearby objects will of course strongly suggest that the animal was the victim of such stroke. Evidence on the ground that the animal struggled before dying, on the other hand suggests that the cause was not lightning but rather disease or accident of some other kind. Marks on the lower part of a leg or the foot of an animal killed by lightning may occasionally be found, either on the hair or beneath the skin. To determine definitely the cause of death frequently requires the skill of a trained veterinarian. Even a person of such training may, however, find it difficult to decide whether death resulted from lightning or some other cause, particularly if the notice of loss and hence the adjustment has been delayed for some time following the death of the animal.

A few of the farmers' mutual fire insurance companies refuse to insure livestock. In such cases separate mutuals have in some instances been formed to give protection on farm animals against fire and lightning. The latter usually term themselves livestock insurance companies although they do not afford "livestock insurance" in the more comprehensive as well as the more common meaning of the term. Similarly in a few instances two fire insurance mutuals are found operating in identical territory with one insuring only buildings, and the other insuring personal property including livestock. These subdivisions of the field of farm fire insurance result in needless duplication of work and of expense. There is no valid reason why a single mutual should not provide protection for all forms of farm property insofar as the hazards of fire and lightning are concerned. The one possible exception is the farmer's automobile, which presents many special problems and on which he will in any case need other forms of protection which his local fire mutual is not in position to provide.

Sandy's Dilemma

Sandy was engaged to a girl who, a few days before her nineteenth birthday, succumbed to the prevailing feminine craze and had her hair bobbed. All her girl friends congratulated her on her improved appearance and it was, therefore, without any misgivings that she showed herself to her sweetheart. But Sandy viewed her with grave disapproval. "It's hard on me, lassie," he said, "verra hard! After I've just bought you a packet of hairpins for your birthday."—*Boston Transcript.*

Equal to the Occasion

Teacher—"Sammie, name the four seasons."

Sammie—"Salt, mustard, vinegar and pepper!"—*The Progressive Grocer.*

Insurance Conditions In France

(*Continued from page* 13)

world leaders in Re-insurance. When the German field was closed about a dozen French Re-insurance Companies were formed. The premium income of the French Companies rose from twenty million francs in 1914 to one hundred and twenty million francs in 1919 and to four hundred and twenty-two million francs in 1924. The claims in 1924 amounted to one hundred and forty-nine million francs. If well directed the business is said to have a great future in France. A year ago there were twenty-two French Re-insurance Companies. One of them is operating in the United States under the name of the Fire-Re-insurance Company. Re-insurance is a delicate operation. In addition to a technical knowledge of insurance there must be an intimate knowledge of the nature of the risks. Mr. Sumien states that the French are not successful operators in the world of re-insurance. They lack, he said, the audacity of the English and are timid about crossing their own borders. They dislike new risks and consequently miss favourable opportunities for business. They are without the optimism that is essential to the extension of business. They hesitate to incur an expense if it is not susceptible of conversion into a quick profit. In fact, they do not know the business, but they are learning. They found themselves in the presence of circumstances where they had to exercise initiative and energy in the improvisation of a new institution. The Germans, however, are gradually getting back into the French market. They were prohibited by the Treaty of Versailles but are permitted to enter by license under a later Convention. The English are there, of course, but they work in a different way to the Germans. The English method is characterised—to use Mr. Sumien's words —by commercial audacity. They offer facilities and service on approved lines on the take it or leave it plan. The Germans, on the other hand, penetrate into the native business, seek control or an interest in a native company and subsequently operate through that medium. The Italians also work in the same way. One of the largest of the French Insurance Companies is controlled by a group of Italian financiers.

THE Vice-President of an American Stock Insurance Company in his Address to the Western Insurance Bureau the other day stated quite correctly that the "pulsating force" that was driving them was profit. This is true also of France but the Institution of Insurance cannot thrive in the real sense of the word in this atmosphere of International scramble for profit. The French public and the public men of France are uneasy regarding the extortionate drift of this pulsating force in the sphere of Insurance.

M. Caillaux, one of the ablest of French financiers and business men, when he was Minister of Finance two years ago originated the idea of the French Government entering the re-insurance business on its own account by establishing a State Office for re-insurance, following the example of Italy. He submitted a Draft Bill for the purpose to the Chamber of Deputies on the 25th of May, 1925. He was clearly after additional revenue which he thought the re-insurance business would provide. The British Government entered the insurance business during the War, insuring property against damage by enemy aircraft and made a net profit out of it of fifty million dollars. The French project failed because it was ill-prepared, but it may be revived one of these days. Though it failed M. Caillaux's successor at the French Treasury was equally eager to appropriate some of the profits of insurance. He attained his object in another way which I will explain later.

When will insurance men learn the lesson that the only way to keep the State out of insurance is by mutualising the institution? Mutual Insurance is the safety-valve that will keep the State out of the business. It is interesting to note that M. Caillaux's plan was to put aside 20% of the annual net profits after establishing the technical reserve provided by law. This provision was to cease to be compulsory after the reserve fund had reached one hundred and fifty million francs. Private insurance companies, both French and Foreign, transacting insurance of any kind in France and America had to cede in re-insurance to the State Office a quota share of 50% of each risk.

(To be continued)

Are You Going to Washington?

(*Continued from page* 8)

One sees the bed upon which Washington died, and the little attic chamber in which his widow so soon afterward breathed her last.

Among the many priceless relics are the key of the Bastille, that grim old prison of French kings, at last destroyed by a long suffering people, a gift from Lafayette to Washington, and the harpsichord, or old-time piano, the wedding gift of Washington to pretty Nellie Custis.

SUBSEQUENT issues will tell of further interesting features of Washington, but just now allow us to call attention again to the fact that travel to Washington is heavy at all times, and for the most convenience, it would be desirable to make reservations now. This will not only insure the best accommodations, but will greatly assist the Committee in making their plans for entertainment.

The Federation will be glad to make reservations from Chicago to Washington on either the Capitol Limited of the B. & O., or the Liberty Limited of the Pennsylvania.

Or if you choose to make your reservations direct, address Mr. P. C. Benedict, Asst. Gen. Passenger Agent, B. & O. R. R., Room 607, 112 W. Adams St., Chicago, or Mr. A. W. Keene, Passenger Representative, Room 524, Union Station, Penn. R. R., Chicago.

Those desirous of viewing the really splendid scenery along the way, which includes mountains, and majestic rivers, and such interesting places as Harper's Ferry and other spots of Civil War celebrity on the banks of the Potomac, may leave on a late afternoon train, arriving in Washington the next afternoon.

Mixing His Cues

Yesterday we heard positively the last one on our friend, the absent-minded professor. He slammed his wife and kissed the door.—*Denison Flamingo.*

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SAVING IN COST

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Beacon Mutual Fire Insurance Company

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211 Congress Street
Boston, Mass.
A. Shirley Ladd, Secretary

In the Year of Our Independence

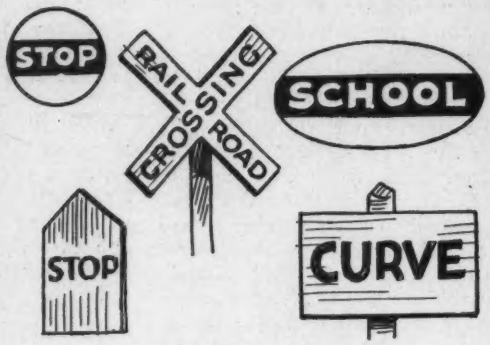
(*Continued from page* 14)

aid which overcame the obstacles of the past and brought us so far on the road of national destiny; and that it is this same spirit in which the journey must be continued, in which the tasks of tomorrow must be faced.

The security of what Washington once referred to as a great experiment rests wholly upon the sense of mutual concern and the willingness to co-operate which dominate the lives of the American people. Both development and defense are a common enterprise. In America these things are not done for us—they are done by us. This splendid city is the capitol of our rulers only in the sense that it is the capital of the people. Here we pool our hopes, our aspirations, our impulses, our resources, in order that they may combine for our mutual welfare and protection, and come back to us in dividends of peace and prosperity.

None can so well appreciate the significance of all this as those who have by training and experience learned the mutual way. The forces of mutual insurance gathering in this historic meeting place must feel themselves in step with the life of the Nation, and must go back to their several homes and centers of activity inspired with a new realization of the dignity of their calling, and the essential soundness of the principles by which it is animated.

Translate the Traffic Signs



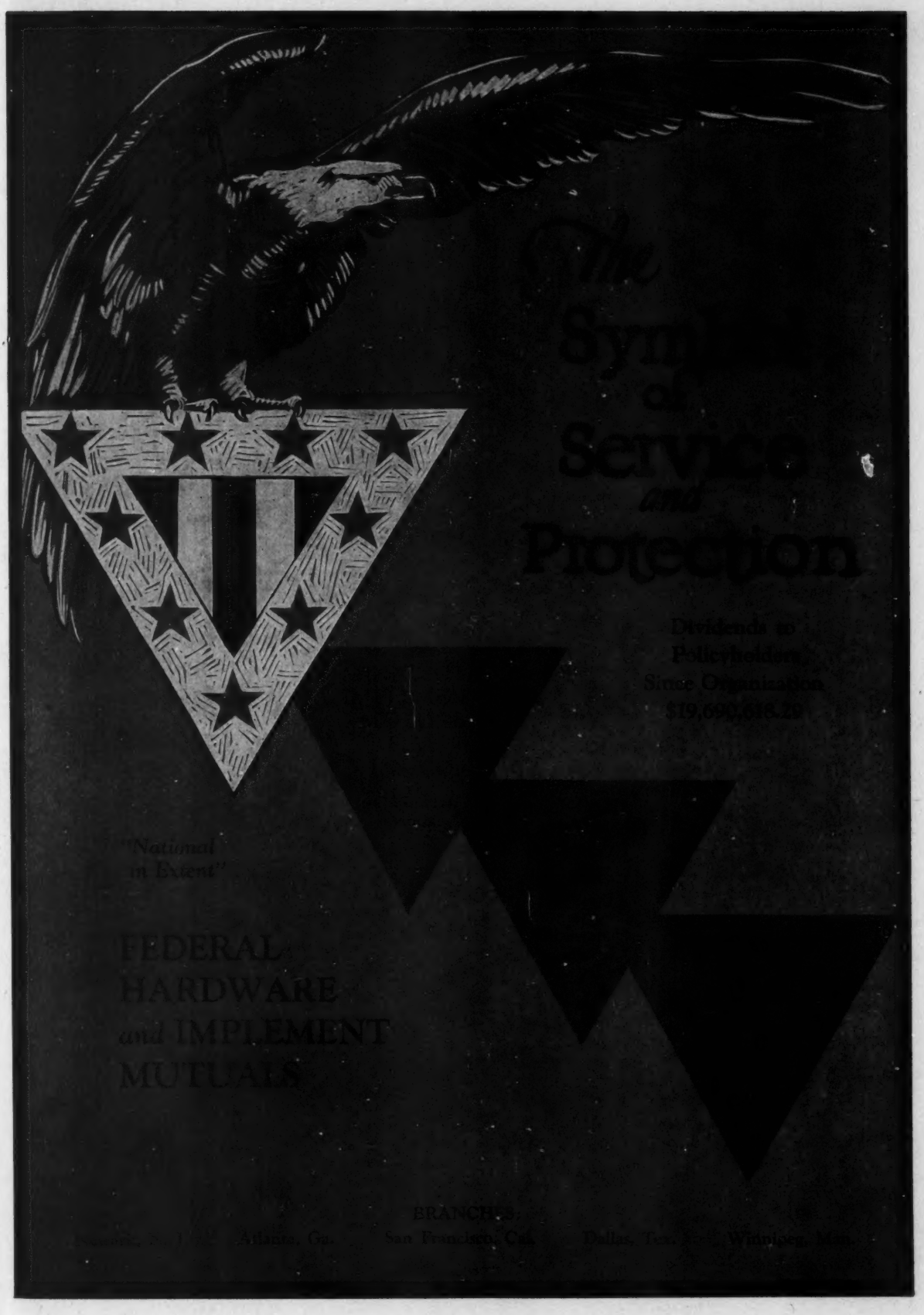
You need not know Greek or Latin to do it.

When you translate a traffic sign, the translation reads something like this:

"This sign is placed here to mark a point that has infinite possibilities of accident. It is a dangerous spot because all the elements that make for high-class, first-rate injuries and killings are here in abundant quantity. By telling you this we expect that you will exercise the respect you have for your own life and your reluctance to be the cause of injury or death to others. Children pass here and you can't expect them to be careful. You've got to watch out for their lives. Here is a playground, that means more kids. There's a curve ahead. Go Slowly! This is a sharp turn, Watch Out! If you and everybody else will heed the traffic signs at these spots, we won't have any accidents here."

Translate every traffic and warning sign you come to. You can do it quickly to the greater safety of yourself and others. Help reduce the number of accidents. Think Safety.

HARDWARE MUTUAL CASUALTY COMPANY
STEVENS POINT, WISCONSIN


The
Symbol
of
Service
and
Protection
Dividends to
Policyholders
Since Organization
$19,690,618.29
"National
in Extent"
FEDERAL
HARDWARE
and IMPLEMENT
MUTUALS
BRANCHES
Atlanta, Ga.
San Francisco, Cal.
Dallas, Texas
Winnipeg, Man.

Your LEADERSHIP *Will Help* SAVE LIVES

YOU have it in your power to help stop accidents involving automobiles. Every woman and girl has it in* her *power. Every man and boy has it in* his *power. Each one's part is easy but of vital importance. Resolve now to do yours. Lend your leadership to saving lives. This page tells how you can do it.

NEARLY all automobile accidents are avoidable. If every person, walking or driving, knew the rules of the road and obeyed them, *accidents would practically cease.*

When there IS an accident, some one is at fault; perhaps through carelessness; perhaps through ignorance. But the fault is there just the same, and some innocent person suffers or even dies because of it.

Let us stamp out this needless sacrifice of life, by stamping out the ignorance and carelessness which cause it.

The prevention of accidents can best come about through carefully and willingly observing the rules of the road. Any person will be glad to obey the rules if he *understands* them, because they are vital to his own safety.

The public is made up of individuals. To win this great mass of people in whose hands our safety lies, we must win its individual members to accident prevention. Your leadership will help tremendously.

A certain number of people look to you for guidance. They respect you and follow your example. In many matters they ask your counsel. By using that confidence you can help save lives; perhaps the lives of people near and dear to you!

To make a beginning, our Safety Committee has prepared a handsome 32-page book called "Preventable Accidents." It lists 15 of the most common causes of accidents. By the use of photographs it shows how violations of road rules cause accidents. These road views are like airplane maps—the whole situation at a glance.

Over a quarter of a million copies of "Preventable Accidents" have been issued. We invite you to send for your copy. Familiarize yourself with the rules of the road, whether you drive a car or not.

Discuss this subject frequently among your friends and acquaintances. Show them the illustrations in "Preventable Accidents."

Send the coupon for your own copy of "Preventable Accidents," and tell us how many additional copies you wish to distribute in your group. If you prefer to give us names and addresses we shall gladly mail the books direct.

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I am willing to do my part to help prevent automobile accidents. Please send me your 32-page book illustrated with 120 photos.

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